FREDERICK COUNTY
DIVISION OF FIRE AND RESCUE SERVICES

ALTERNATIVE SERVICE DELIVERY TASK FORCE

REPORT TO THE FREDERICK COUNTY BOARD OF COUNTY COMMISSIONERS

AUGUST 31, 2010

Fire and Rescue
Alternative Service Delivery Task Force
Report
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Frederick County Board of Commissioners

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IAFF Local 3666

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OUR TASK

The Board of County Commissioners (BOCC) instructed the Director of the Division of Fire and Rescue Services (DFRS) to undertake a study of the current fire and emergency medical service delivery system to identify changes in the system that could result in achieving significant cost savings. The Commissioners stated that they understood that adjustments in service delivery to achieve cost savings would likely result in adverse service delivery impact and that the service impact of any options presented should be included in the analysis. In receiving this direction, the Director of Fire and Rescue Services established a multi-disciplinary task force to undertake the evaluation requested. The taskforce members are:

- Wayne Powell, Vigilant Hose Company – Representing the Frederick County Volunteer Fire and Rescue Association.
- Keith Brown, Junior Fire Company – Representing the Frederick County Volunteer Fire and Rescue Association.
- Jimmy May, Urbana Fire & Rescue Company – Representing the Frederick County Volunteer Fire and Rescue Association.
- Jim Graham, Walkersville Fire and Ambulance Companies – Representing the Frederick County Volunteer Fire and Rescue Association.
- Charles Scott, DFRS Career Lieutenant – Representing the Frederick County Career Firefighters and Paramedics Association – IAFF Local 3666
- David Lal, DFRS Career Firefighter – Representing the Frederick County Career Firefighters and Paramedics Association – IAFF Local 3666
- Tom Coe, DFRS Battalion Chief – Representing DFRS Staff
- Rick Himes, DFRS Bureau Chief – Representing DFRS Staff
- John “Sonny” Scarff, Resident of Frederick County, Maryland.
- Thomas Owens, Director, Division of Fire and Rescue Services

Alternates:

- Frank Davis, Vigilant Hose Company
- Josef Chlebowski, DFRS Firefighter/Paramedic

Ex-Officio Members:

- Micky Fyock, President - Frederick County Volunteer fire and Rescue Association
- John Neary, President - Frederick County Career Firefighters and Paramedics Association – IAFF Local 3666

EXECUTIVE SUMMARY

Current fiscal forecasts indicate that future fire tax revenue will not support anticipated expenditures for fire and rescue services at the current service level. Deficits begin in the current fiscal year (FY2011) and continue for the next several fiscal years. FY2011 remains solvent overall due to the current level of fire tax fund balance. Beginning in FY2012, an overall deficit of $5.6 million dollars is anticipated, rising to an accumulated deficit of $15.1 million dollars in FY2013.

The Alternative Service Delivery Task Force was formed to evaluate organizational changes within the county fire and rescue services that could result in cost savings as the first step in addressing the deficits that are forecast. The task force included representatives from the Frederick County Volunteer Fire and Rescue Association, Frederick County Career Firefighter and Paramedics Association, Division of Fire and Rescue Service staff and a citizen of Frederick County, Maryland. It was agreed that the task force would work as a committee of the whole and over the past four months, the task force met regularly to evaluate a number of alternatives that might produce cost savings. The evaluation process began with a review of numerous legacy documents from past staffing studies, management plans, consultant reports, budget documents and previous recommendations.

At the outset, the task force quickly realized that a significant part of the looming fiscal crisis in fire tax funds is directly related to the transfer of operating expenses from the general fund to the fire tax fund. This action reduced the available fire tax fund balance by some $4.2 million dollars over the past two fiscal years. While this action helped relieve some of the funding shortfall in the general fund budget, it has become clear that the deficit problem was transferred to the fire tax fund which was not structured to absorb these costs.

The task force discussed a wide variety of cost reduction alternatives, however; it is clear that if there is an expectation that the entire fire tax deficit must be reduced solely by expenditure reductions, the level of deficits we are facing cannot be eliminated without significant reductions in staffing. This report will present four (4) options to reduce staffing and re-deploy the remaining personnel. Each option results in a different level of cost savings and each takes a slightly different approach to re-deployment of remaining personnel. The level of staff reductions necessary to fully reduce the deficits will result in the de-staffing of a number of fire and rescue stations throughout the County. This action will return

these stations to 100% volunteer staffed operations at a time when many of our volunteer fire and rescue corporations are struggling to maintain a viable operational force, especially during weekday hours. Our evaluation reflects that the resulting service deficit created by the elimination of career staff support will be significant and an overall reduction in staff support will have both a ripple effect across the system and a number of unintended consequences in other areas. The task force cannot in good conscious or professional judgment support the elimination of career staffing.

This report also draws a number of conclusions related to specific policy changes that should be considered by the Board of County Commissioners (BOCC). These policy issues relate to specific areas of operating costs, capital facility and equipment expenditures, volunteer participation and volunteer recruitment. The report also identifies several opportunities to increase sources of revenue for fire and rescue services. The task force recommends that the BOCC give further consideration to these policy recommendations.

While each task force member represented a different point of view, the members came together in an effort to take an honest look at our current form of service delivery to identify opportunities to reduce costs. They are to be commended for the time, energy and effort they invested in this task.

BACKGROUND

For many years, Frederick County relied almost entirely on volunteer fire and rescue companies that self-funded by raising donations from their respective communities. With continued growth and changes in the complexity of community life styles, Frederick County has had to provide funding support for the system.
Most recently, Frederick County has funded the resources for its fire and emergency medical services system using a dedicated fire tax structure as the primary revenue source. The fire tax was developed in accordance with Chapter 2-8.6 of Part II Code of Public Laws of Frederick County, 1979.

The fire tax districts were authorized and are currently established in two forms:

- The **URBAN** fire tax district was established to provide funding for fire and emergency medical needs in communities that desired career staffing support on a twenty-four hour, seven day week basis.

- The **SUBURBAN** fire tax district was established to provide funding for fire and emergency medical needs in communities that desired career staffing support, but did not require twenty-four hour coverage.

The fire tax rates were established to support personnel and capital costs. Specific tax rates were set so the respective funds would generate more revenue than initially necessary to allow for future growth in staffing that was anticipated to become necessary. Over the years, a number of volunteer companies have requested and been approved for career staff support and to change from the suburban tax district to the urban tax district in order to support their need for twenty-four hour staffing to be provided.

CURRENT SYSTEM DESIGN

In order to explore alternatives to our current service delivery model we must first understand the current system configuration. The Frederick County Fire and Rescue Service can best be described as a "confederation" of community based fire and/or ambulance companies. These community based companies are independent organizations that have formed alliances through the Frederick County Volunteer Fire and Rescue Association (the Association) for the purpose of reaching consensus to achieve basic standards of operation. The Association is also the forum through which the fire and rescue service attempts to interact with the county government in a system approach. Unfortunately, individual companies have been invited to interact with public policy officials of the county government outside of the Association process for individual desires and this has often worked in opposition to a system approach to fire and emergency medical service management that the Association has attempted to foster.

Likewise, the county has chosen not to evolve the volunteer companies into a countywide fire and rescue system as the county government's involvement in fire and rescue service delivery increased. This means that the confederation relationship of volunteer fire and rescue corporations and the Association also includes the county staff of DFRS. This confederation relationship has proven to make enforcement of adopted rules, regulations, policies and procedures challenging at best and sometimes impossible at its worst. There are currently

twenty-six (26) volunteer fire and/or ambulance corporations in Frederick County that operate thirty (30) fire–rescue stations. Twenty-two of these stations are supported by career employees of DFRS. Currently, seventeen (17) volunteer corporation stations have career staffing assigned on a 24 hour, seven day basis and five (5) volunteer corporations have career staffing assigned on a 12 hour, five day basis. Career staff support is provided at the request of the volunteer fire/rescue corporation, with the approval of the BOCC.

Frederick County Fire & Rescue Stations

COMPANY NUMBER & NAME	STATION LOCATION	STAFFING	TAX DISTRICT
1. Independent Hose Co.	310 Baughman's Lane, Frederick, MD	Career / Volunteer	Urban
2. Junior Fire Co.	535 North Market Street, Frederick, MD	Career / Volunteer	Urban
3. United Steam Fire Co.	79 S. Market Street, Frederick, MD	Career / Volunteer	Urban
4. Citizens Truck Co.	9 South Court Street, Frederick, MD	Career / Volunteer	Urban
5. Brunswick Vol. Fire Co	223 West Potomac Street, Brunswick, MD	Volunteer	Suburban
6. Vigilant Hose Co.	25 West Main Street, Emmitsburg, MD	Volunteer	Urban
7. Middletown Vol. Fire Co.	13 South Church Street, Middletown, MD	Career / Volunteer	Suburban
8. Myersville Vol. Fire Co.	301 Main Street, Myersville, MD	Career / Volunteer	Urban
9. New Midway Vol. Fire Co.	12045 Woodsboro Pike, New Midway, MD	Volunteer	Urban
10. Guardian Hose Co.	21 North Church Street, Thurmont, MD	Volunteer	Suburban
11. Walkersville Vol. Fire Co.	79 West Frederick Street, Walkersville, MD	Volunteer	Suburban
12. Braddock Heights Vol. Fire Co.	6715 Jefferson Blvd., Braddock Heights, MD	Career / Volunteer	Urban
13. Rocky Ridge Vol. Fire Co.	13516 Motters Station Rd., Rocky Ridge, MD	Volunteer	Urban
14. Carroll Manor Fire Co.	2795 Adams Street, Adamstown, MD	Career / Volunteer	Urban
15. New Market Vol. Fire Co.	76 West Main Street, New Market, MD	Career / Volunteer	Urban
16. Woodsboro Vol. Fire Co.	2 South Third Street, Woodsboro, MD	Career / Volunteer	Urban
17. Libertytown Vol. Fire Co.	12027 South Street, Libertytown, MD	Career / Volunteer	Urban
18. Graceham Vol. Fire Co.	14026 Graceham Road, Thurmont, MD	Volunteer	Suburban
19. Brunswick Ambulance Co.	200 W. Potomac Street, Brunswick, MD	Career / Volunteer	Suburban
20. Jefferson Vol. Fire Co.	4603-A Lander Road, Jefferson, MD	Career / Volunteer	Urban
21. Wolfsville Vol. Fire Co.	12464 Wolfsville Road, Myersville, MD	Volunteer	Urban
22. Lewistown Vol. Fire Co.	11101 Hessong Bridge Road, Thurmont, MD	Career / Volunteer	Suburban
23. Urbana Vol. Fire Co.	3602 Urbana Pike, Frederick, MD	Career / Volunteer	Urban
24. Walkersville Vol. Rescue Co.	73 Frederick Street, Walkersville, MD	Career / Volunteer	Suburban
25. Green Valley	3939 Green Valley Road, Monrovia, MD	Career / Volunteer	Urban
26. Emmitsburg Ambulance Co.	17701 Creamery Road, Emmitsburg, MD	Career / Volunteer	Urban
28. Carroll Manor: Pt. of Rocks	1809 Ballenger Creek Pike., Pt. of Rocks, MD	Career / Volunteer	Urban
30. Thurmont Ambulance Co.	27 North Church Street, Thurmont, MD	Career / Volunteer	Suburban
31. Westview	5525 New Design Road, Frederick, MD	Career / Volunteer	Urban
33. Spring Ridge	6061 Spring Ridge Parkway, Frederick, MD	Career / Volunteer	Urban

Frederick County has a robust automatic response system with neighboring fire and rescue agencies. Automatic aid exists with Ft. Detrick, Adams County, PA., Carroll County, MD., Franklin County, PA., Howard County, MD., Jefferson County, WV., Loudoun County, VA., Montgomery County, MD., and Washington County, MD. These agencies regularly respond to assist with emergency incidents within Frederick County.

TACTICAL UNIT DEPLOYMENT & STAFFING

Frederick County maintains a very robust and contemporary fleet of fire suppression, rescue and emergency medical tactical units. These tactical units are geographically deployed throughout the county in a manner that reflects the community based design of the service.

A community based fire and rescue service often develops without regard to countywide tactical unit coverage leading to duplication of tactical assets or tactical units not geographically distributed where needed across the system. This is the case in Frederick County and in many communities across the country. The Frederick County Fire and Rescue Service currently consists of 35 basic life support ambulances, 8 advanced life support chase units, 45 engines/engine tankers, 7 aerial ladders/quints, 16 rescue squads/rescue engines and a variety of specialized units such as brush trucks, tankers, boats, etc. Staffing of these tactical units is problematic.

Frederick County operates a combination volunteer/career fire and rescue service. While we desire to maximize the use of qualified volunteers for operational service delivery and administrative support, just as in many communities across the country, volunteer participation in local fire and rescue companies has diminished over the years and this has generated the need for volunteer corporations to request that career fire and emergency medical providers be employed by the county to provide needed tactical unit staffing. This has occurred in twenty-two of the thirty fire-rescue stations.

Career employees were originally requested to provide emergency medical staffing and over time the need evolved to include the staffing of fire suppression units. The predominate form of career staff support involves “cross-staffing” of tactical units.

The cross-staffing system employs a smaller number of career providers that are assigned to staff the station. The expectation is that they respond with a single response unit that is the priority service required based on the incident type dispatched. In essence, for an emergency medical incident the career staff responds with the ambulance and the remaining fire unit(s) is then unstaffed unless volunteers are available. The same is true for a fire incident where the career staff responds with the fire suppression unit and the ambulance is then unstaffed. While this staffing scheme makes maximum utilization of available career staff, the basic design of this method sacrifices one tactical capability for the other. Given the emergency call volume that Frederick County experiences today, this "single pull" staffing practice is very risky. This is especially true when a building fire can cause a number of ambulances to become unstaffed due to the fire response.

EMERGENCY MEDICAL SERVICES

Total number of BLS Ambulances - 35

- Dedicated Career Staffing – 8 units (1, 2, 3, 25, 26, 30, 31, 33)
- Career Cross-Staffed – 16 units (1, 2, 3, 7 (12 hr), 8, 12, 14, 15, 16, 17, 19(12hr), 20, 22(12hr), 23, 24(12hr), 28
- Volunteer Staffed – 13 units – (2, 3, 7, 14, 17, 19*, 23, 24*, 26, 30*)
  *denotes station has 2 unstaffed units
- Volunteer EMS First Responder Only – 4 units (9, 13, 18, 21)

Total number of ALS Ambulances - 0

Total number of ALS Chase Units - 8

- Dedicated Career Staffing – 7 units (2, 8, 17, 20, 23, 30, 31)
- Career Cross Staffed - 0
- Leave Impact Staffed – 1 unit (Medic 100)

STRUCTURAL FIRE SERVICES

Total number of Engines (including Engine Tankers) - 45

- Dedicated Career Staffing –5 units (1, 3, 25, 31, 33)
- Career Cross-Staffed – 12 units (2, 7 (12 hr), 8, 12, 14, 15, 16, 17, 20, 22 (12 hr), 23, 28)

- Volunteer Staffed – 28 units (2, 3*, 5*, 6*, 9*, 10*, 11*, 12, 13#, 16, 17, 18*, 20, 21*, 22, 23*, 25)

  *denotes station has two unstaffed units
  #denotes station has three unstaffed units

Total number of Ladders (including Quints) - 7

- Dedicated Career Staffing– 1 unit (4)
- Career Cross-Staffed – 3 units (1, 14, 23)
- Volunteer Staffed – 3 units (5, 6, 11)

Total number of Rescue Squads (including Rescue Engines) - 16

- Dedicated Career Staffing – 1 unit (3)
- Career Cross Staffed – 12 units (1, 2, 7 (12 hr), 8, 14, 15, 16, 17, 19 (12 hr), 20, 24 (12 hr), 28
- Volunteer Staffed – 3 units (5, 6, 10)

  ( ) = company numbers where units are located**.**

DFRS Operational Staff Functions

- On-Duty Shift Battalion Chief – 1
- On-Duty Shift Safety Officer – 1
- On-Duty Shift Emergency Medical Supervisor – 1

Response area coverage provided by our current career staffing deployment is depicted in Figures 1 – 5.

MATRIX OF CURRENT CAREER DEPLOYMENT				
	24 HR EMS	12 HR EMS	24 HR FIRE	12 HR FIRE
Station 1	2		5	
Station 2	2		3	
Station 3	2		6	
Station 4			3	
Station 5	All Volunteer Station			
Station 6	All Volunteer Station			
Station 7[1]		2		1
Station 8	2		2	
Station 9	All Volunteer Station			
Station 10	All Volunteer Station			
Station 11	All Volunteer Station			
Station 12	2		1	
Station 13	All Volunteer Station			
Station 14	2		2	
Station 15	2		1	2
Station 16	2			
Station 17	2			1
Station 18	All Volunteer Station			
Station 19[1]		2		
Station 20	2			
Station 21	All Volunteer Station			
Station 22[1]		2		
Station 23	2		1	
Station 24[1]		2		
Station 25	2		3	
Station 26	2			
Station 28	2			
Station 30[1]		2		
Station 31	2		3	
Station 33	2		3	
Medics	7			
BC			1	
Safety			1	
EMS	1			
TOTAL FTE	40	10	35	4

Total Per Shift 24-hr[2] = 75

Total Daywork Only[2] = 14

[1] 12 hour career-staffed only

[2] total/shift does not include leave impact positions

***** CURRENTLY 354 TAX FUNDED POSITIONS - OPERATIONS *****

Figure 1

Current Career EMS Deployment

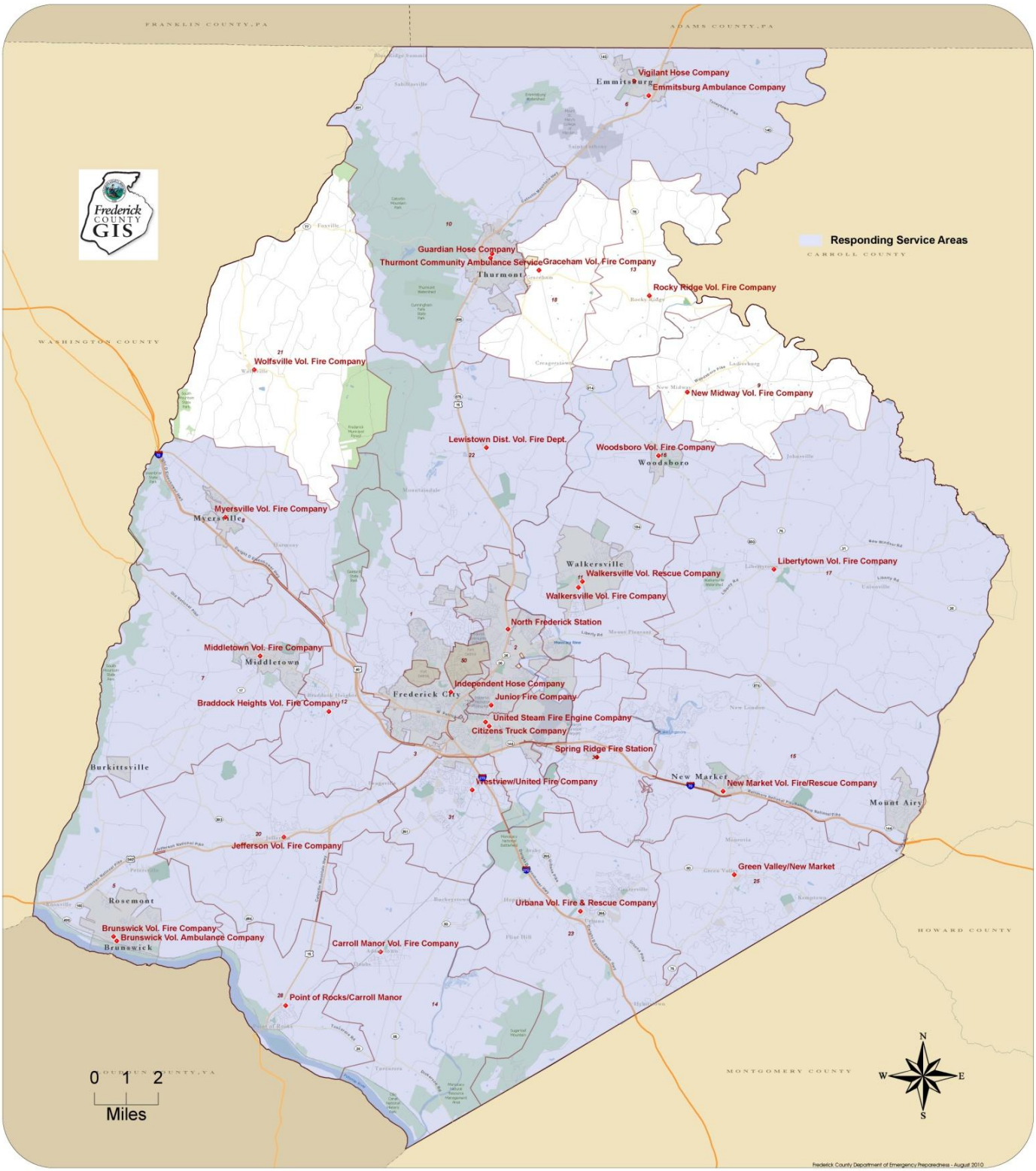


Figure 2

Current Career EMS Deployment - Evening

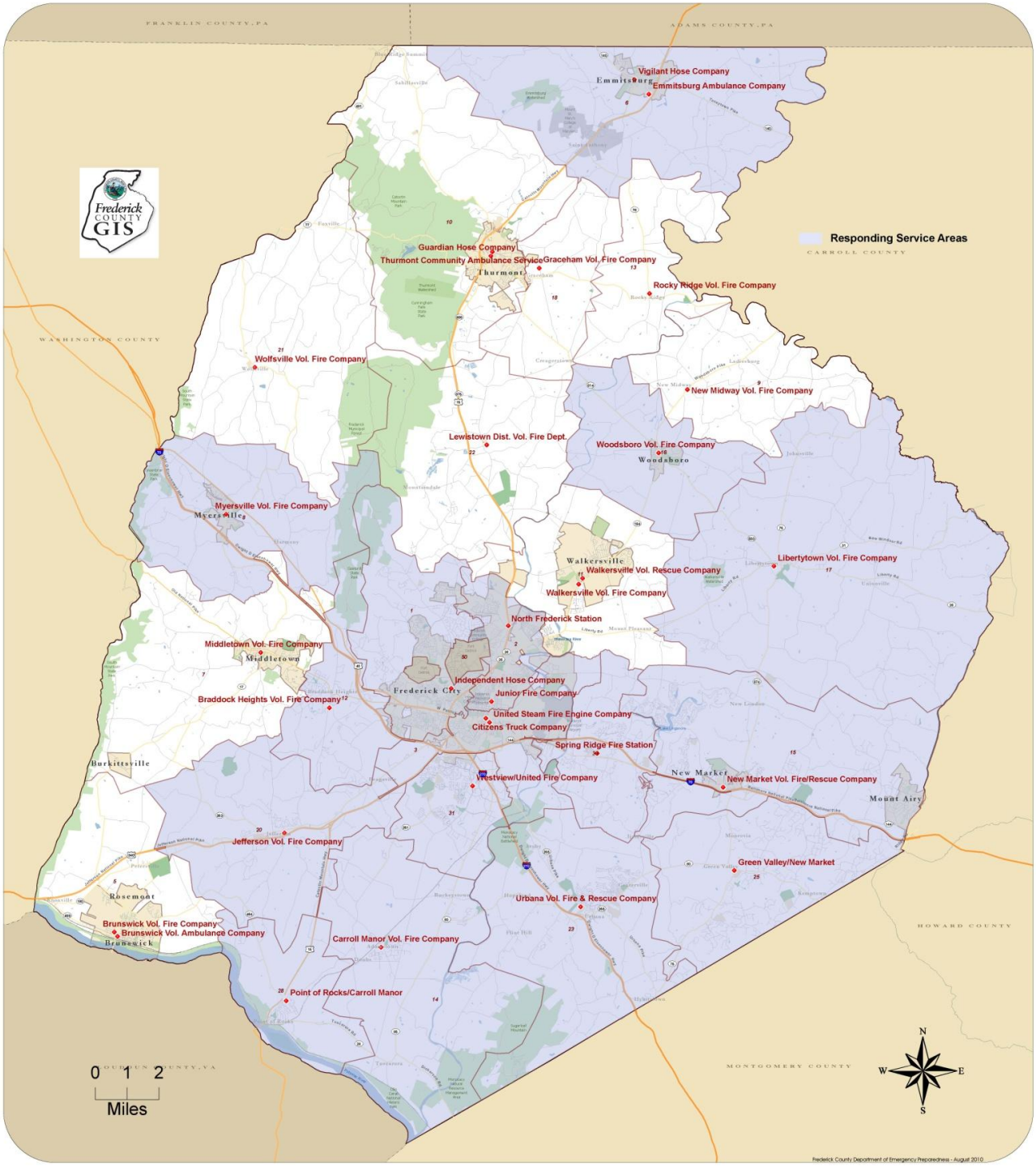


Figure 3

Current Career Fire Deployment

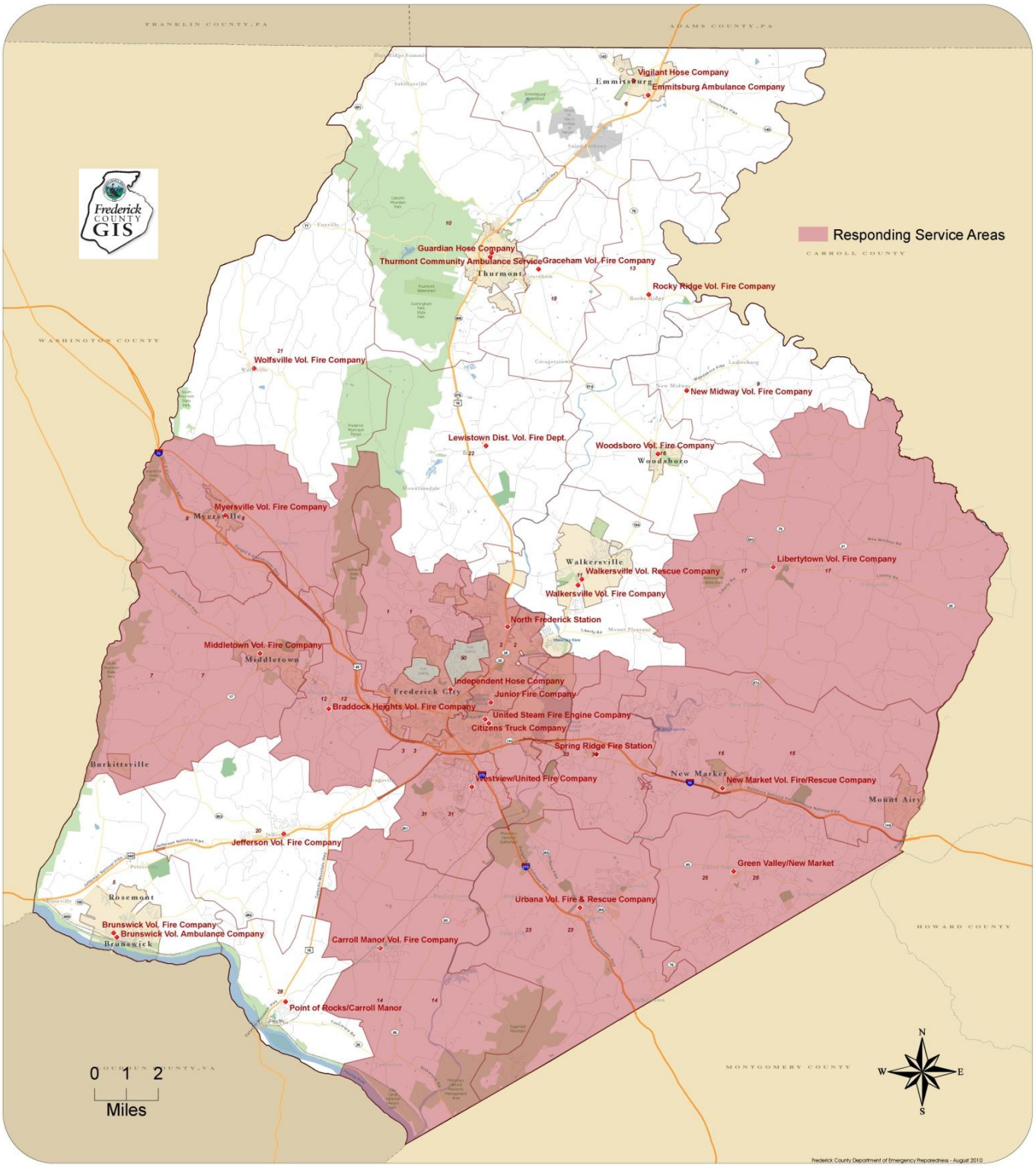


Figure 4

Current Career Fire Deployment - Evening

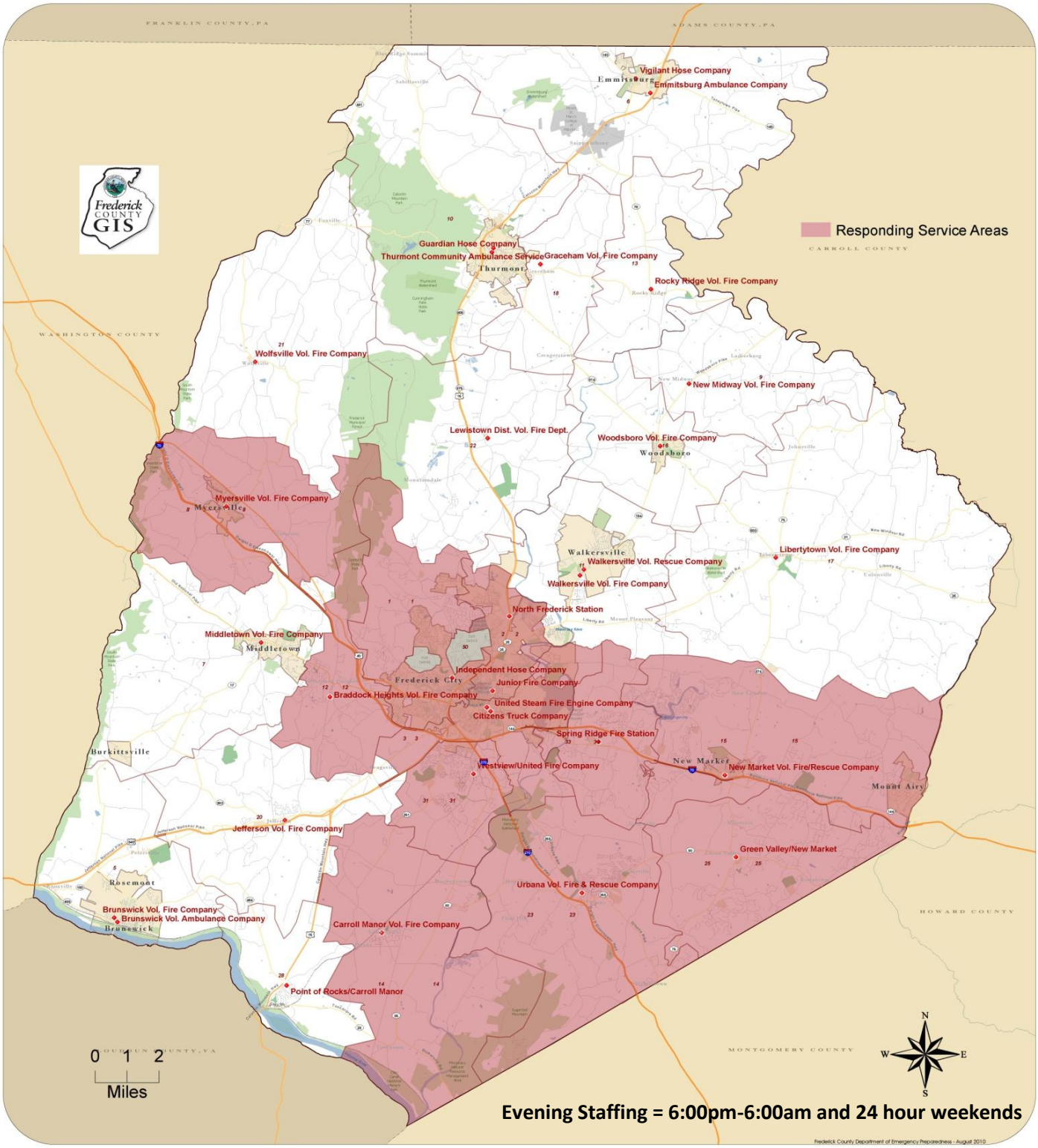


Figure 5

RESPONSE TIME GOALS

EMS Response Time Goals

Advanced Life Support (ALS) - Only stated EMS response goal:

- ALS on scene in 8 – 12 minutes, 90% of the time to 90% of the population.

Fire Response Time Goals – *Targets Identified By NFPA 1720**

Urban Areas

- Population >1000 people per square mile
- Recommended staffing is 15 trained personnel on scene within 9 minutes 90% of the time.

Suburban Areas

- Population 500-1000 people per square mile
- Recommended staffing is 10 trained personnel, within 10 minutes 80% of the time

Rural Areas

- Population <500 people per square mile
- Recommended staffing 6 trained personnel, within 14 minutes 80% of the time

Remote Areas

- Travel distance >8 miles
- Recommended staffing is 4 personnel 90% of the time
- Upon assembling the necessary resources at the emergency scene, the fire department should have the capability to safely commence an initial attack within two minutes.

Response goals are critical to the planning process for fire and EMS agencies, as they impact the location of fire/rescue stations, as well as the apparatus placement and staffing in those stations. To develop these goals, agencies use accepted standards such as cardiac survival rates from the American Heart Association as well as Flashover Curves and fire ground deployment standards as promulgated by the National Fire Protection Association (NFPA). These standards define the actions that must be performed within scientifically researched time frames in order to achieve the best outcome for life safety and protection of property.

**National Fire Protection Association (NFPA) Standard 1720 - STANDARD FOR THE ORGANIZATION AND DEPLOYMENT OF FIRE SUPPRESSION OPERATIONS, EMERGENCY MEDICAL OPERATIONS AND SPECIAL OPERATIONS TO THE PUBLIC BY VOLUNTEER FIRE DEPARTMENTS*, has not been formally adopted by Frederick County Board of County Commissioner, but is the recognized "standard of response coverage" in the United States.

Rationale for EMS Response Time Goals

The American Heart Association Chain of Survival (Figure 6) outlines actions that must be taken in order to successfully resuscitate victims in an out-of-hospital cardiac arrest scenario. The initial consideration is how fast basic life support can be provided to citizens who suffer a cardiac arrest. American Heart Association (AHA) studies have shown that cardio-pulmonary resuscitation (CPR) must begin immediately, and in all cases no later than **four to six minutes** of a cardiac arrest.

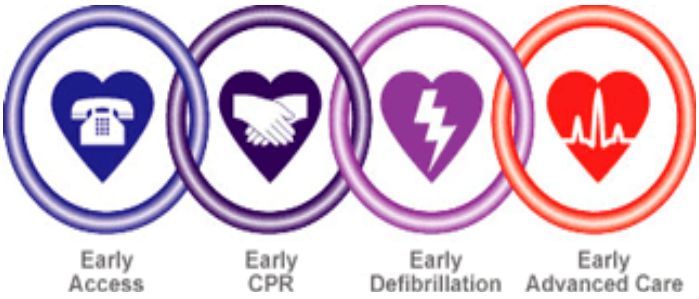
Early defibrillation must then follow early CPR. According to the AHA, the chance for successful re-starting of the heart through defibrillation decreases by 10% for every minute past the initial cessation of the heart that defibrillation is not delivered. Early access, early CPR, and early defibrillation must be followed by advanced life support (ALS) in order to provide advanced coronary care. The combination of late CPR (more than four minutes) and delayed advanced life support significantly decreases the chances for survival without complications.

An additional consideration is early ALS intervention for patients that are not yet in cardiac arrest, but have a cardiac rhythm that will become lethal if not treated rapidly. According to the American Heart Association, early advanced care provided by personnel trained and certified as ALS providers at the scene serves three primary purposes in the treatment of cardiac emergencies:

1. ALS intervention is designed to prevent cardiac arrest through the use of advanced airway management, administration of medications, and other ALS interventions.

2. ALS intervention includes therapies that may help resuscitate victims of cardiac arrest who are not in Ventricular Fibrillation (VF), or who are not responding to defibrillation.

3. ALS intervention can provide defibrillation if VF develops, prevent re-fibrillation and help stabilize the patient after resuscitation.



American Heart Association Chain of Survival

Figure 6

Rationale for Fire Suppression Response Time Goals*

In order to have an effective fire suppression response, units must be able to apply water to a fire prior to the point of flashover. Flashover occurs anywhere from four (4) to eleven (11) minutes after the fire begins. This of course is dependent on the intensity of the fire and the materials that are burning within the structure.

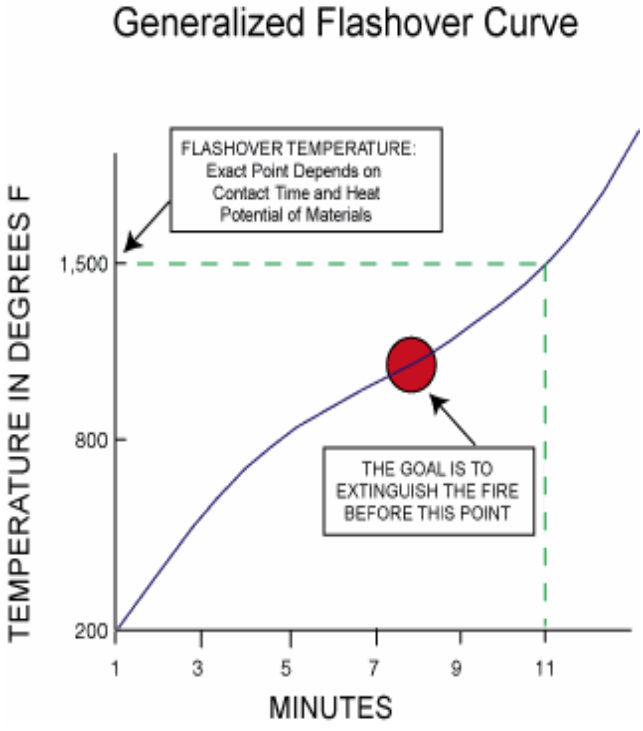


Figure 7

Flashover occurs when the contents of a room or structure is heated to the point at which the contents of the room will become totally engulfed with flames. Flashover marks the end of an effective search and rescue in a room; it means the death of any person trapped in the fire room—either civilians or firefighters. Flashover signals the end of the growth stage and that the fire is in the second stage of combustion—the fully developed stage. Flashover signals the change from "contents burning" to the "structure burning." The risk of building collapse becomes greater as the fire continues to advance during the fully developed stage. This risk is magnified by the lightweight construction techniques used today and the risk to fire suppression forces is even greater today.

In order to intervene effectively in the fire scenario, fire suppression must begin prior to flashover, normally within approximately **eight minutes** after being dispatched (Figure 7). Once flashover occurs, fires expand exponentially and the fire can double in size every few seconds after flashover has occurred. This fire expansion causes more property damage, creates less chance of civilian survival outside of the room of origin, and increases the potential for firefighter injuries. The structural fire response goal is to intervene prior to flashover occurring.

CURRENT SERVICE DELIVERY SYSTEM PERFORMANCE

Throughout Frederick County, community based fire and ambulance stations are located in a manner that provides very good geographical response coverage (Figures 8 & 9).

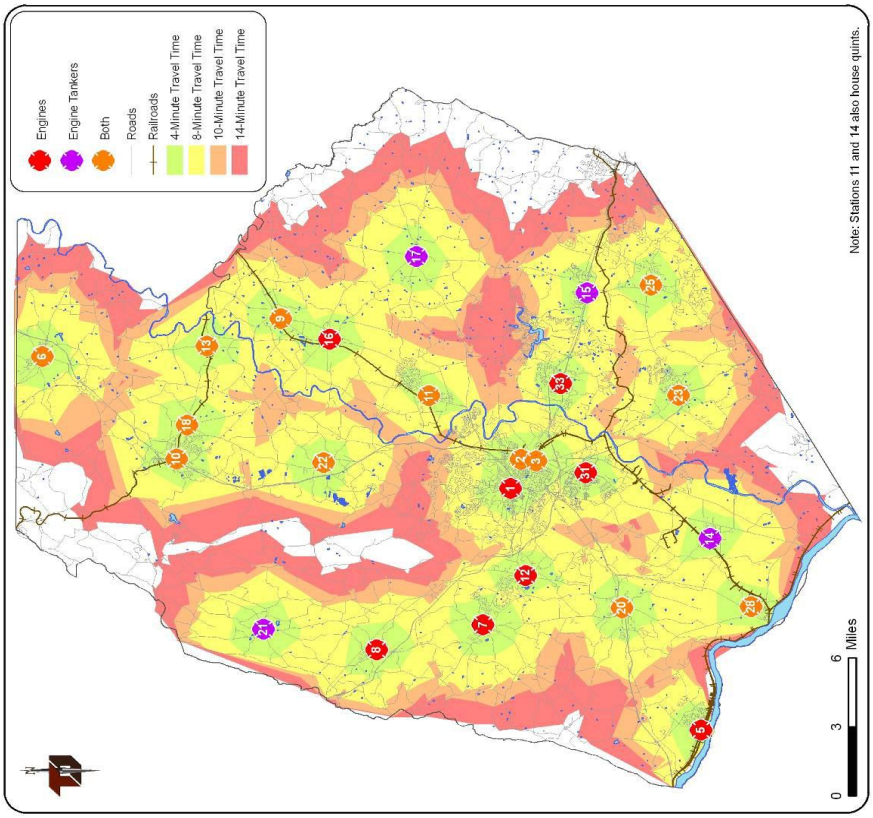


Figure 9

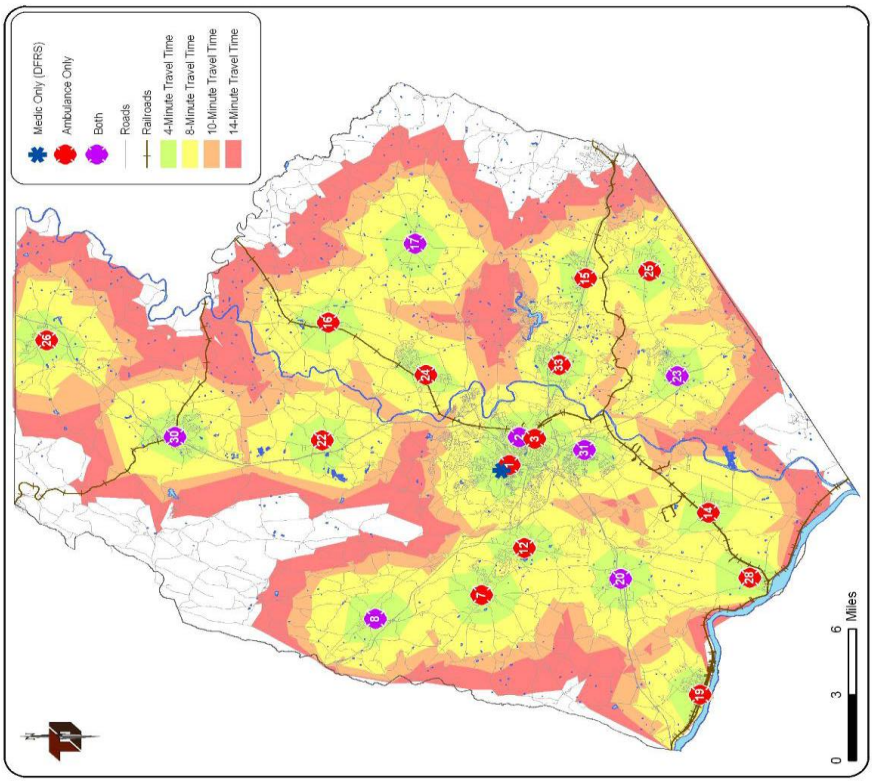


Figure 8

Travel Times for Current Ambulance, Medic Unit and Fire Station

EMS Response Time Goals

- Current ALS delivery system *meets* the response goal in all but remote areas.
- Current BLS delivery system *meets* the response goal (American Heart Association Standard of 4-6 minutes) in urban areas and many suburban areas.
- EMS First Responder service is provided in rural and remote areas when possible.

Structural Fire Response Time Goals

- **Urban Service Areas**
  - Current service delivery system *meets* response goals of NFPA 1720
- **Suburban Service Areas**
  - Current service delivery system *meets* response goals of NFPA 1720 in most suburban service areas
- **Rural Service Areas**
  - Current service delivery system *does not* meet response goals of NFPA 1720
- **Remote Service Areas**
  - Current service delivery system *does not* meet response goals of NFPA 1720

The county continues to monitor growth areas to plan for additional fire and ambulance stations to meet future increases in service demand in areas of rapid development. Two sites have been identified in the North Frederick growth area for future fire-rescue station locations.

Some minor deficiencies in station locations can be corrected as replacement stations are planned in the future.

WORKLOAD ANALYSIS

Fire and emergency medical service workloads are directly influenced by growth in both population and density. An historical look at population growth in the county from 2005 through 2009 reflects that the number of fire and emergency medical responses increased by an average of 1,966 calls for service per year (Figure 10).

Frederick County Fire-Rescue Incident/Population Summary: 2005 – 2009

Calendar Year	*Emergency Incidents*		*Total Incidents*	*Population*
	Fire	*EMS*		
2005	*5,015*	*17,123*	*22,138*	*218,700*
2006	*5,536*	*16,516*	*22,052*	*220,425*
2007	*5,780*	*20,359*	*26,139*	*224,650*
2008	*5,293*	*20,983*	*26,276*	*228,375*
2009	*5,215*	*24,788*	*30,003*	*232,600*

Figure 10

Using this historical trend in response data we can derive a rough order of magnitude for projecting the increase in fire and emergency medical service workload (Figure 11). If, on average, Frederick County has experienced an annual increase of 1,966 incidents over the past four (4) years. The increase in service demand can be estimated if population growth remains fairly consistent as compared to previous years.

Frederick County Population Projections* / Service Demand Increase

	2010	2015	2020	2025	2030
Projected Population	**243,220**	**265,566**	**287,913**	**307,067**	**326,224**
Projected Fire-Rescue Incidents	**31,969**	**41,799**	**51,626**	**61,456**	**71,286**

Figure 11

*** Source: Frederick County Division of Planning – Population Projection Data**

PROBLEM STATEMENT

The current Urban Tax Rate is set at $0.128 per $100.00 of assessed real property value and is forecast to generate $30,528,810 in revenue during FY 2011.

The current Suburban Tax Rate is set at $0.08 per $100.00 of assessed real property value and is forecast to generate $3,843,869 in revenue during FY 2011.

When revenue from the two tax rates is combined with the other sources of revenue, such as ambulance transport fees, earned interest, etc., the combined total revenue forecast for FY 2011 is $38,068,180. With combined FY 2011 expenditures projected to be $44,775,199, a deficit of $6,707,019 in FY 2011 is anticipated. Currently, a combined fund balance of $10,485,083 exists between the two fire tax funds. When applied to the FY 2011 deficit a projected fund balance of $3,778,064 is forecast to carry forward into FY 2012.

Looking forward, at the current tax rates, a significant revenue deficit is being forecast in the coming years. For FY 2012, the deficit anticipated is estimated to be $5,529,301 and the accumulated deficit FY 2013 is projected at $15,056,587.

While the failing economy has contributed to the projected revenue shortfall, the deficit is also being influenced by two other factors. First, the urban fire tax rate was lowered in FY 2007, which reduced the effective yield of the urban tax district over the past four fiscal years. Second, operating expenses that were once funded by the general fund were removed from the general fund in FY 2009 and FY 2010 and are required to be funded by fire tax revenue.

This budget action required the fire tax fund balance to absorb some $4.2 million dollars in unanticipated expenditures, and this action drastically reduced the fire tax fund balance that would have otherwise been available to help offset the decline in revenue/increased costs.

Given these circumstances, the DFRS has worked to reduce budgeted expenditures over the course of the past fiscal year (FY 2010) and into the current fiscal year (FY 2011). During FY 2010, DFRS made mid-year budget adjustments that reduced the FY 2010 budget by $1,498,669. A further reduction of an additional $1,099,050 was made during the FY 2011 budget process. DFRS has also delayed filling vacant uniformed firefighter and paramedic positions in order to gain salary and benefit cost savings to the greatest extent possible. In line with this, the BOCC

approved the DFRS Director's recommendation to delay the next recruit hiring until at least January of 2011.

The challenges presented by these deferred cost decisions have ramifications that are discussed later in this report.

EVALUATION OF COST REDUCTION ALTERNATIVES

The task force undertook a process to evaluate cost reduction options in several areas and to also explore opportunities for additional revenue sources. Our study included the following areas of review / evaluation:

- Evaluate alternative work schedules for career personnel to identify staff/ cost reductions that could be achieved.
- Develop other service delivery models to reduce costs and identify service delivery impact associated with each.
- Examine capital facility and equipment funding and recommend alternatives.
- Examine alternatives for further operating cost reduction.
- Examine methods to increase operational participation by volunteers and expanded use of part-time career personnel.
- Examine the current funding structure and related issues.
- Explore other revenue source alternatives.

CAREER WORK SCHEDULE EVALUATION

The BOCC requested that this evaluation specifically include a review of various work schedules for career personnel. The task force evaluated the net effect and costs associated with the use of several different work schedules, in lieu of the current 24 hour, rotating shift. This evaluation included 8 hours shifts, 10 hour shifts and 12 hour shifts. Our work included an online evaluation of our fire and rescue staffing requirements that was conducted by Shift Schedule Design of San Rafael, California.

Our findings are as follows:

8 HOUR SHIFT SCHEDULE

An 8-hour work schedule would require 370 FTE's in order to maintain an 88 person minimum staffing level on a 24/7 basis, under our current station staffing scheme. With a current staffing strength of 354 FTE's in field operations, the 8-hour work schedule would require an additional 61 FTE's be added to meet the minimum staffing complement and leave impact positions per 8-hour shift. Existing county policy would also provide 8-hour rotating shift employees with shift differential pay for specific shift hours. This would add an additional cost for compensation of fire and rescue shift employees that is not now included for employees working the 24-hour shift schedule. The 8 hour schedule is also less energy efficient because it requires three shifts of firefighters to commute each day.

10 HOUR SHIFT SCHEDULE

A 10-hour work schedule to cover a 24-hour work period is typically used when a period of "up staffing" is needed to meet a predictable period of increased service demand. The overlap of three 10-hour workgroups daily creates what is typically referred to as a power shift because there is a 6-hour period of overlap. In the fire service, 10-hour shifts are often used as a straight day work shift, but the use of the 10-hour schedule as the form of normal fire department staffing for 24-hour coverage is impractical and would require up to 100 additional FTE's. In addition to the additional personnel, shift differential pay would also need to be provided by current policy. The 10 hour schedule is also less energy efficient because it requires three shifts of firefighters to commute each day.

12 HOUR WORK SCHEDULE

The 12-hour work schedule is currently used by DFRS for suburban tax district station staffing. While this schedule works well for covering weekday staffing, the 12-hour schedule is not considered as efficient for maintaining 24-hour station staffing. The majority of fire departments that currently use a 24-hour work schedule evolved from using a 12-hour schedule due to its improved efficiency. The 12-hour schedule requires management of leave impact twice daily which generates an additional management workload. Cross station detail assignments become much more frequent when shifts change twice a day. There is not as much

productivity during a 12-hour night shift. The 12-hour work schedule would also require the addition of shift differential pay which would mean additional cost.

24-HOUR WORK SCHEDULE

The majority of fire departments across the country that provide 24-hour fire station staffing have evolved to the 24-hour work schedule because it is the most efficient and cost effective work schedule for fire station staffing. The 24-hour schedule requires the fewest number of FTE's to maintain constant staffing, provides the greatest flexibility under the Fair Labor Standards Act regarding work hours at straight time pay rates, reduces the burden of managing staffing issues related to multiple shift changes each day, improves productivity when a fire station work plan spans a longer work period, and is more energy efficient because it only requires a single workgroup to commute each day.

40-HOUR PARAMEDIC WORK SCHEDULE

Currently, DFRS has 24 paramedic positions that staff Medic units on a 12-hour day, 40 hour week work schedule. Our analysis has concluded that medic unit staffing can be maintained more efficiently, with fewer paramedics if these positions were reclassified to be 48 hour / 24-hour shift positions. Shift differential pay for paramedics on the 40-hour work schedule would also be eliminated by reclassification to the 48-hour schedule.

FIRE-MEDIC

Going forward, the County should move toward establishing a fully integrated firefighter/paramedic position. Fire-Medics are cross-trained dual-role employees that provide the County with maximum service delivery capability and as such, provide the maximum value for the personnel cost. This position should be established as soon as possible.

ALTERNATIVE SERVICE DELIVERY OPTIONS

In undertaking the evaluation of redeployment options that could result in cost savings by downsizing the career segment of the county fire and rescue services, the task force established several guiding principles:

- Emergency Medical Services (EMS) represents the highest percentage of response activity and places the greatest stress on volunteer staffing due to the high call volume. EMS staffing must be our highest priority.
- The number of volunteers certified as advanced life support providers remains critically low, making the continuation of career advanced life support staffing an equally high priority.
- Fire response staffing must remain strong within the most populated areas due to the high service demand.
- Career staffing for fire response should be based on providing a minimum tactical capability.
- Any regional response asset should be delivered from station locations that are selected, based on both geographic location and travel access to other communities.
- Downsizing of career staff will require volunteers to assume primary responsibility for emergency response within their service areas. We must be more aggressive in volunteer recruitment, provide greater incentive for operational participation, and improve retention of volunteers within our service.
- Service delivery impact related to any alternate deployment must be identified, as compared to current service standards.

The task force considered a variety of proposals that were developed by task force members. These proposals were narrowed to the following four (4) that have been developed for BOCC evaluation. Each of these proposals reduces career staffing to achieve cost savings to varying degrees and each applies a different logic and methodology to achieve its stated outcome.

REDEPLOYMENT OPTION 1

Option 1 is a staffing plan that provides career staffing support on a 24-hour basis, but in fewer station locations countywide. The plan staffs selected stations to deliver both emergency medical and fire response to a much lesser degree of capability than our current staffing configuration. Under this plan:

- Fourteen (14) stations are staffed for emergency medical response (de-staffs 7 ambulances from current staffing)
- Five (5) ALS medic units remain staffed
- Eight (8) stations are staffed for fire response (de-staffs 9 fire units from current staffing)
- Fifteen (15) stations have no career staffing support (de-staffs 8 currently staffed stations)

Option 1 as designed eliminates 88 fulltime career positions. This reduction de-staffs seven (7) medical and nine (9) fire response units that are currently staffed. Only fourteen (14) ambulances and eight (8) fire response units would remain with career staff support and eight (8) stations would be de-staffed to return to all volunteer staffing.

Option 1 is the most drastic of the staffing reduction plans and is intended to close the projected FY 2012 deficit in fire tax revenue through redeployment. Option 1 also has the most adverse impact on our current service delivery capability as outlined below.

Service Delivery Impact

The service delivery impact related to Option 1 is significant as this option will totally remove career staffing that currently provides emergency response support to eight (8) fire-rescue stations. Our immediate response capability at these eight (8) stations will be reduced unless volunteer personnel are available in quarters. This will impact seven (7) ambulances and nine (9) fire suppression units. This represents a 33% reduction in our current career staffed ambulance response coverage and a 60% reduction in our current career staffed fire response coverage. Option 1 returns eight (8) fire-rescue stations back to 100% volunteer response staffing only.

These locations include:

Citizen Truck Company*	Jefferson
Middletown	Lewistown*
Woodsboro	Point of Rocks*
Libertytown	Spring Ridge*

*The availability of operational volunteers in these locations (Citizens, Point of Rocks, Lewistown, Spring Ridge) is very low at the present time, especially during the weekday.

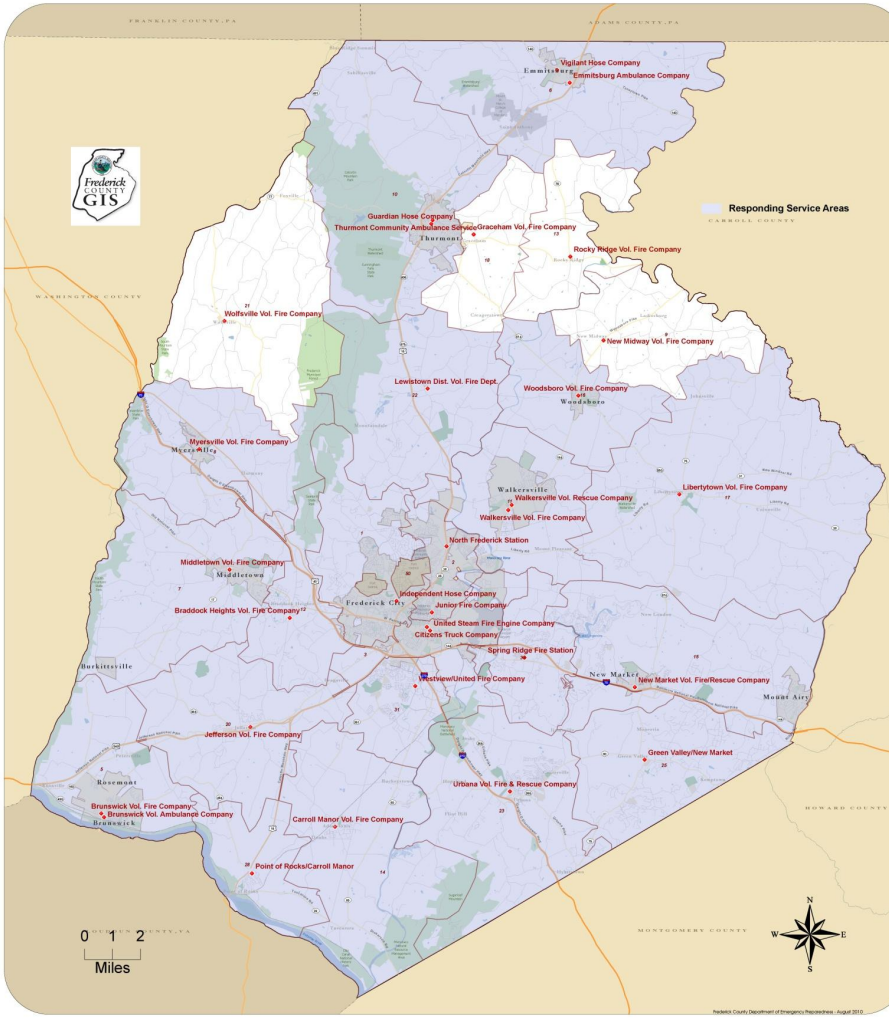
Response Time & Distance

GIS mapping of response time and distances that would result from this staffing option are depicted in Figures 12 and 13.

This map clearly reflects the diminished service delivery capability that will result from the de-staffing of eight (8) fire-rescue stations. Such a drastic re-deployment will create significant gaps in emergency response coverage unless volunteer staffed stations have personnel in quarters and available for immediate response.

We will no longer be able to consistently meet our response time goals in many suburban locations. This will be particularly true during weekday, daytime hours when the vast majority of volunteer fire / rescue personnel are unavailable due to their fulltime jobs. It must also be noted that when a volunteer staffed station is unable to respond, their service demand is transferred to a different station that would be dispatched to pick up this additional response outside of that stations' primary service area. This reality creates a ripple effect throughout the fire/rescue system and will add additional stress to apparatus, equipment and personnel in those stations that pick up this workload. Additionally, the ripple effect only further delays response to calls while first alerted units are out. Our system would not be able to meet either our current or future service demand with this level of staffing reduction.

Current Career EMS Deployment



Career EMS Deployment - Option 1

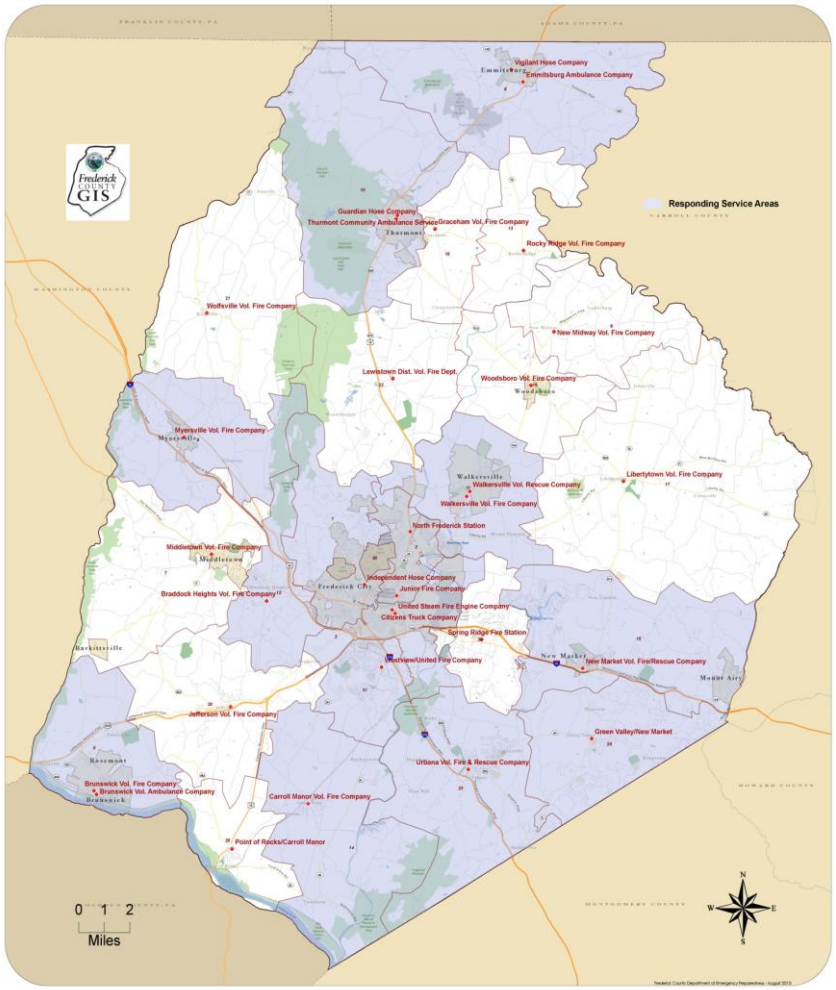
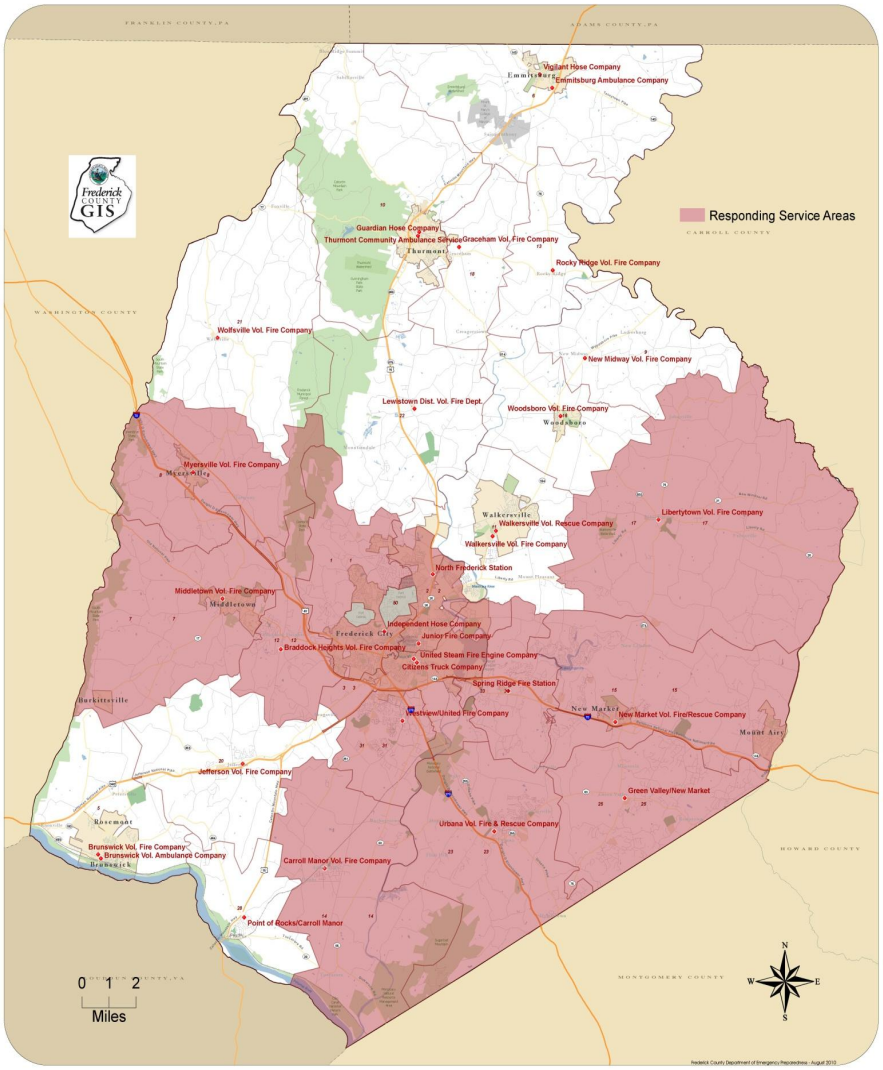


Figure 12

Current Career Fire Deployment



Career Fire Deployment - Option 1

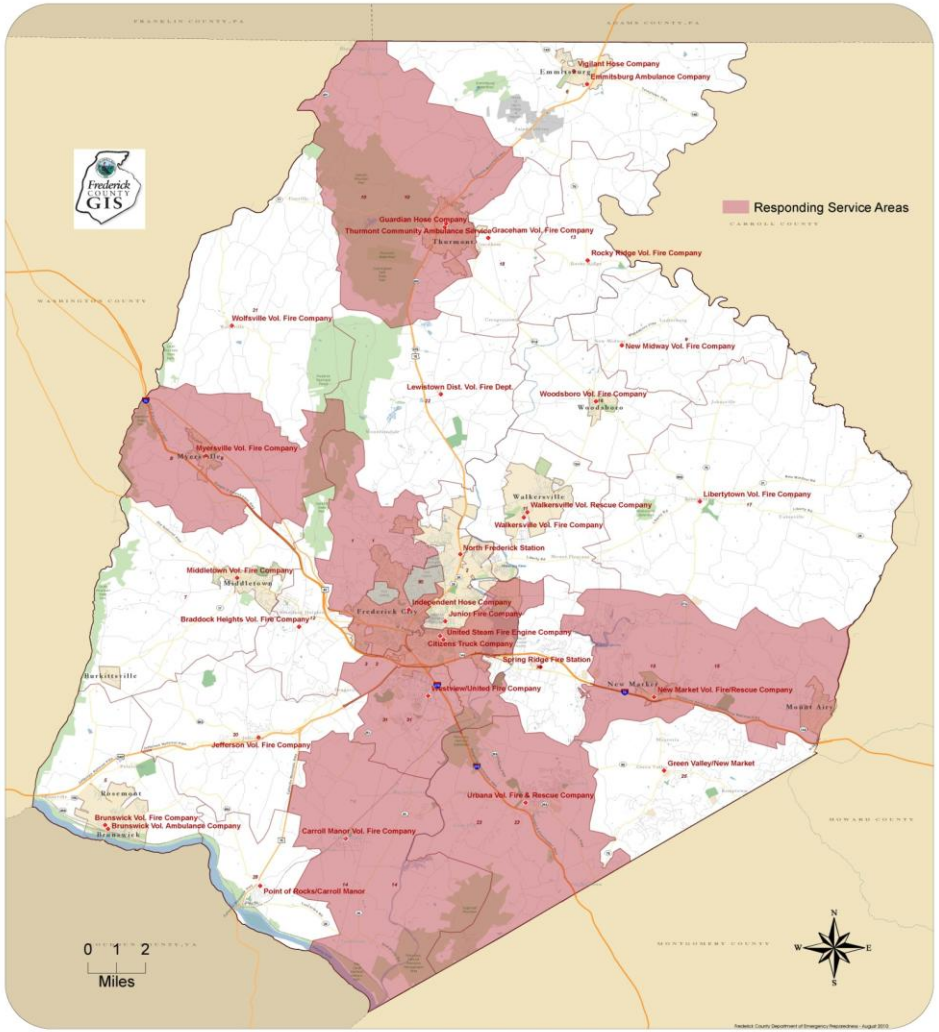


Figure 13

REDEPLOYMENT OPTION 2

Option 2 is a staffing plan that uses a "skip staffing" methodology and maintains the two fire tax funding system. The plan de-staffs selected stations in a manner that provides a neighboring career staffed station that would be simultaneously dispatched with the volunteer staffed station. Under this plan:

- Sixteen (16) stations are staffed for 17 ambulances for emergency medical response. (de-staffs 5 ambulances from current staffing).
- Seven (7) ALS medic units remain staffed.
- Eleven (11) stations are staffed for fire response. (7 dedicated staffed units and 5 cross staffed units. 7 fire units are de-staffed from current staffing)
- Thirteen (13) stations have no career staffing support (de-staffs 5 currently staffed stations).

Option 2 as designed eliminates 75 fulltime career positions. This reduction de-staffs five (5) medical and seven (7) fire response units that are currently staffed. Twelve (12) 24 hour ambulances, five (5) 12 hour ambulances, eleven (11) 24 hour fire response units and one (1) 12 hour fire response unit would remain with career staff support. Five (5) of these fire and ambulance units would be cross staffed. Option 2 de-staffs five (5) stations to return to all volunteer staffing.

Option 2 is designed to de-staff stations in a manner that stations without career staffing are bordered by a station that does have career staffing. While immediate response capability would be reduced, the automatic dispatch of the closest career staffed resource would lessen the impact.

Option 2 also is designed to maintain career staff support using our current configuration that mixes 24 hour staffed stations with 12 hour staffed stations. This plan has been arranged in a manner that would preserve the use of the current two fire tax structure. However, Option 2 generates adverse impact on our current service delivery capability as outlined below.

Service Delivery Impact

The service delivery impact related to Option 2 is significant in that it will totally remove career staffing that currently provides emergency response support to five (5) fire-rescue stations. Our immediate response capability at these five (5) stations will be reduced, unless volunteer personnel are available in quarters. This

will impact five (5) ambulances and seven (7) fire suppression units. This represents a 24% reduction in our current career ambulance response coverage and a 47% reduction in our current career fire response coverage.

Option 2 returns five (5) fire-rescue stations back to 100% volunteer response staffing only.

These locations include:

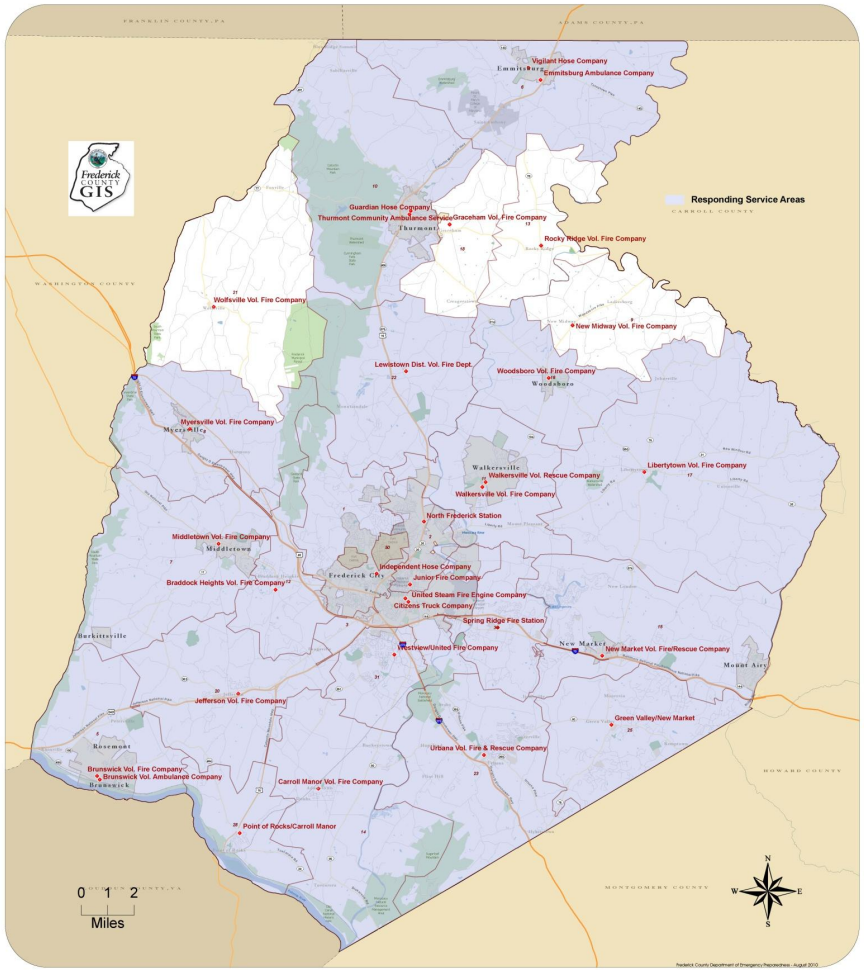
United
Braddock Heights*
New Market
Lewistown*
Point of Rocks*

*The availability of operational volunteers in these locations (Braddock Heights, Lewistown, Point-of-Rocks) is very low at the present time, especially during the weekday. The United station is one of the county's busiest and has utilized career staffing for some 100 years.

Response Time & Distance

GIS mapping of response time and distances that would result from this staffing option are depicted in Figures 14, 15, 16 and 17.

Current Career EMS Deployment



Career EMS Deployment - Option 2

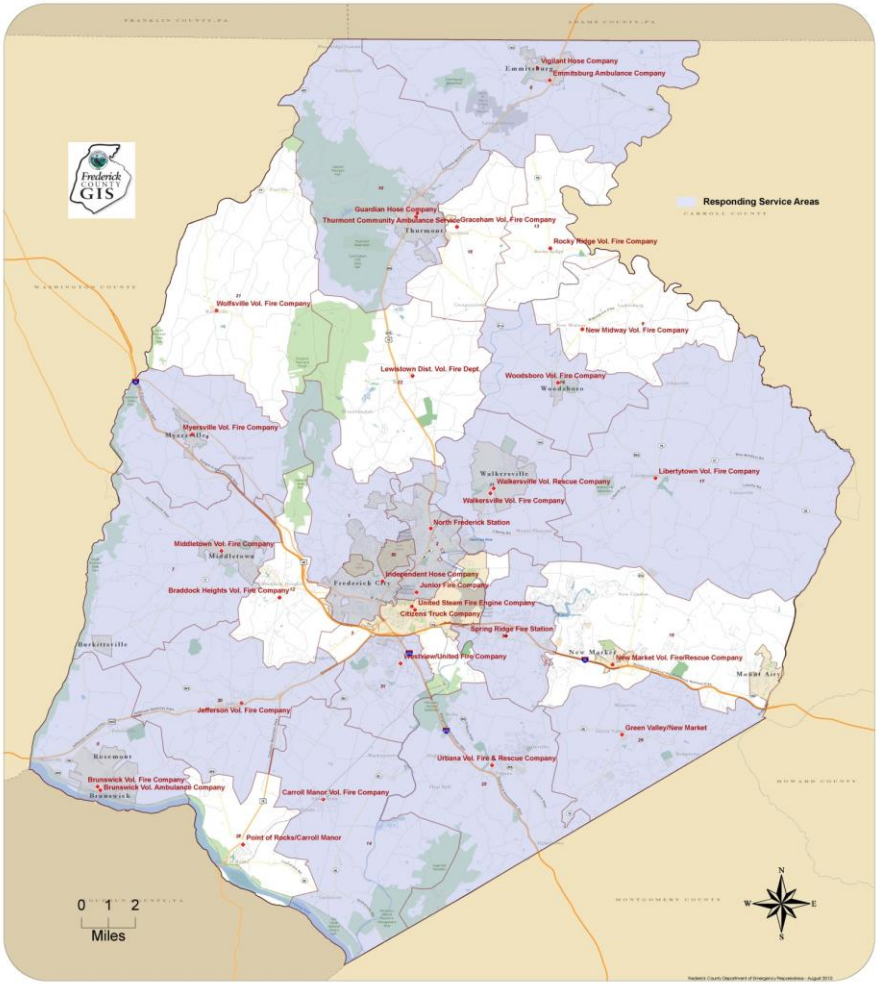
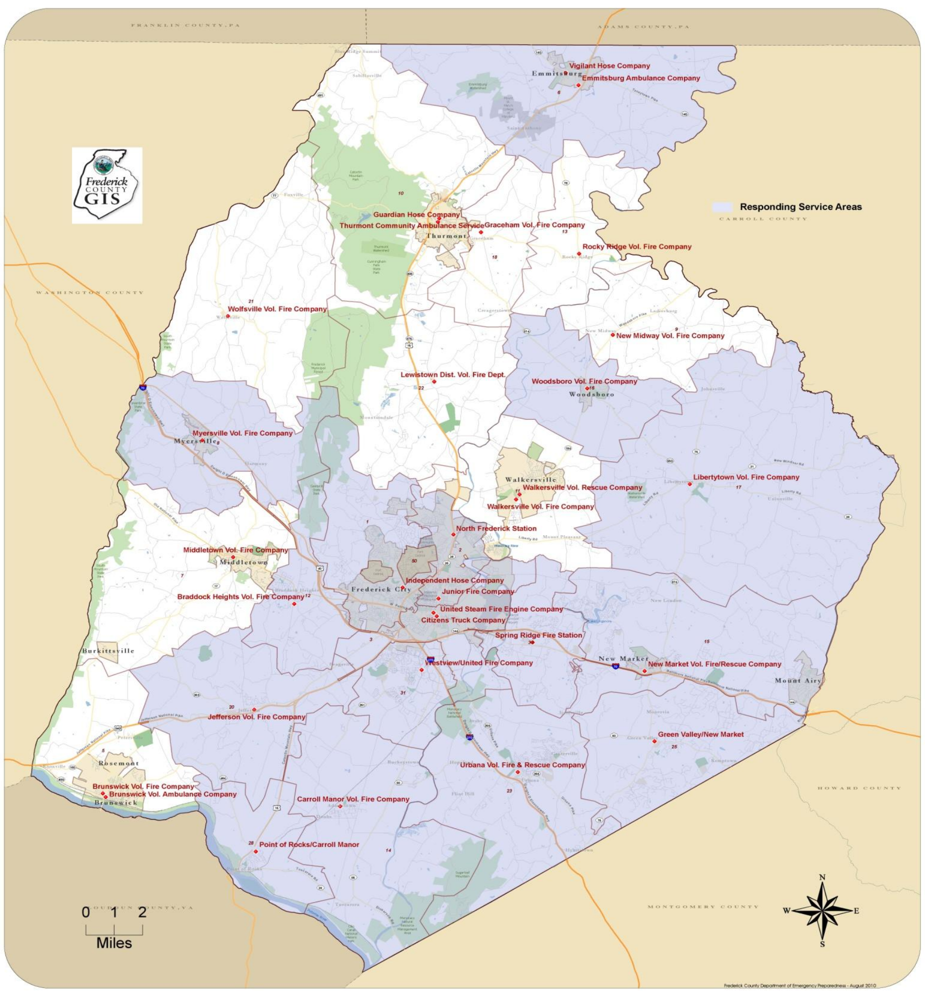


Figure 14

Current Career EMS Deployment - Evening



Career EMS Deployment - Option 2 - Evening

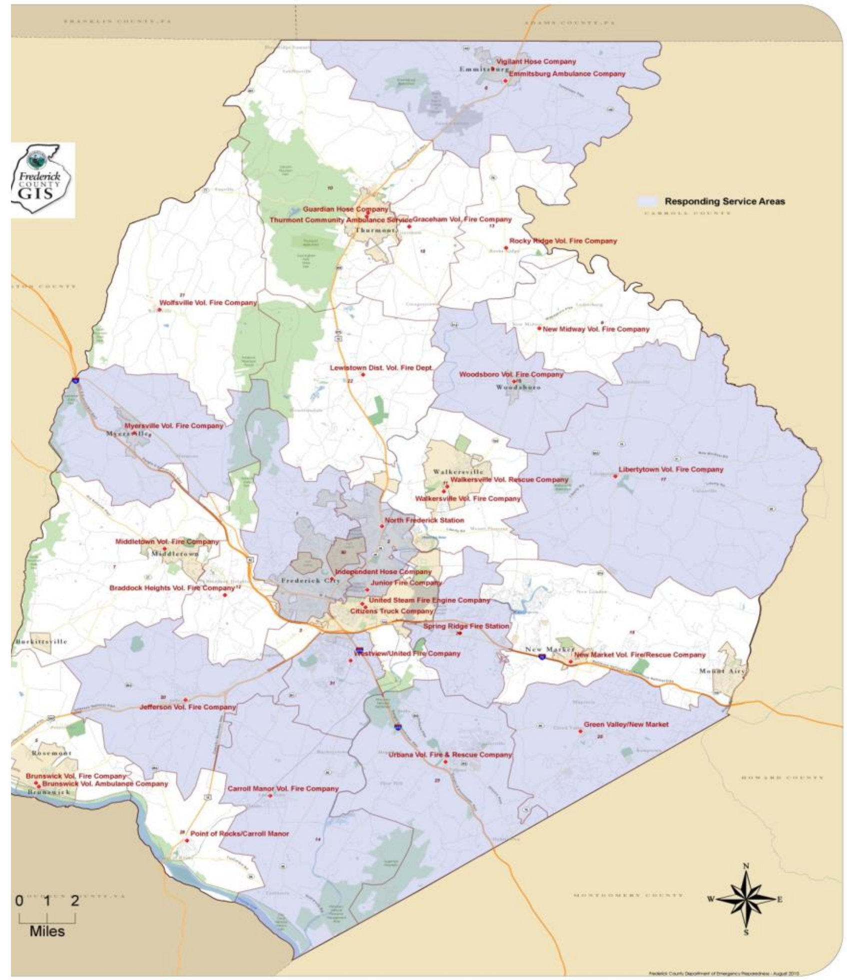
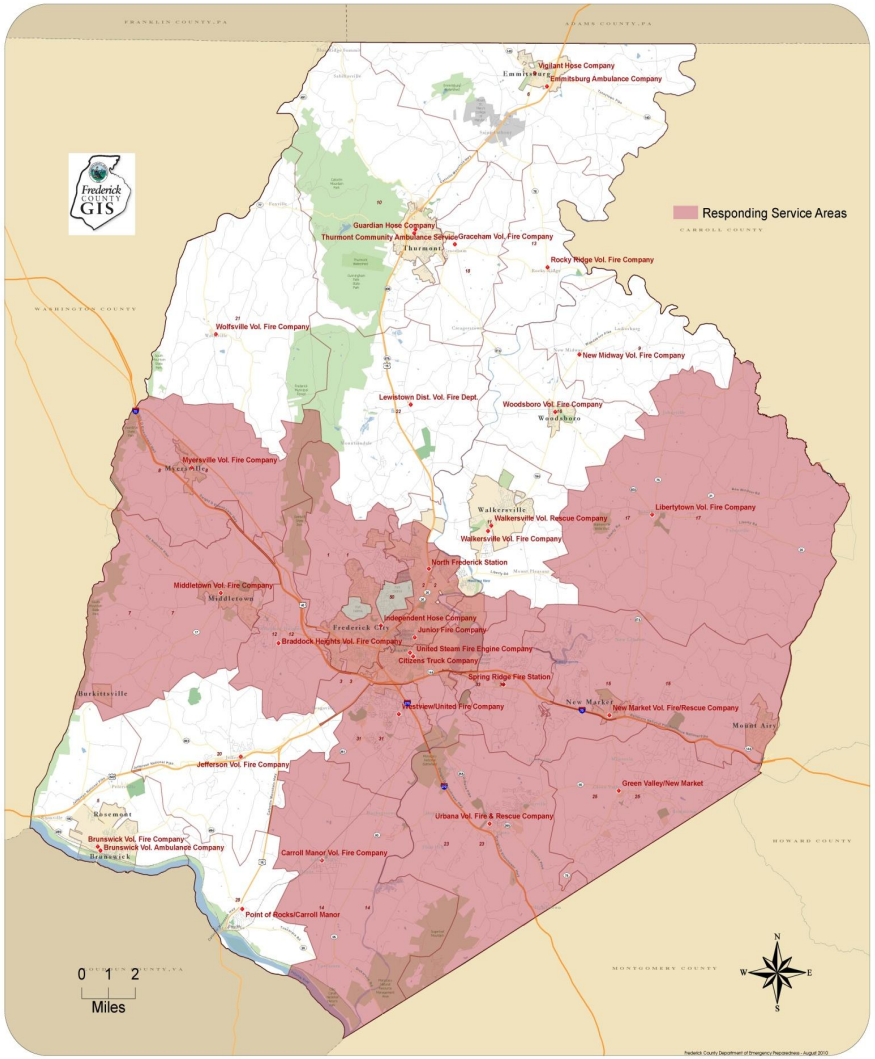


Figure 15

Evening Staffing = 6:00pm-6:00am and 24 hour weekends

Current Career Fire Deployment



Career Fire Deployment - Option 2

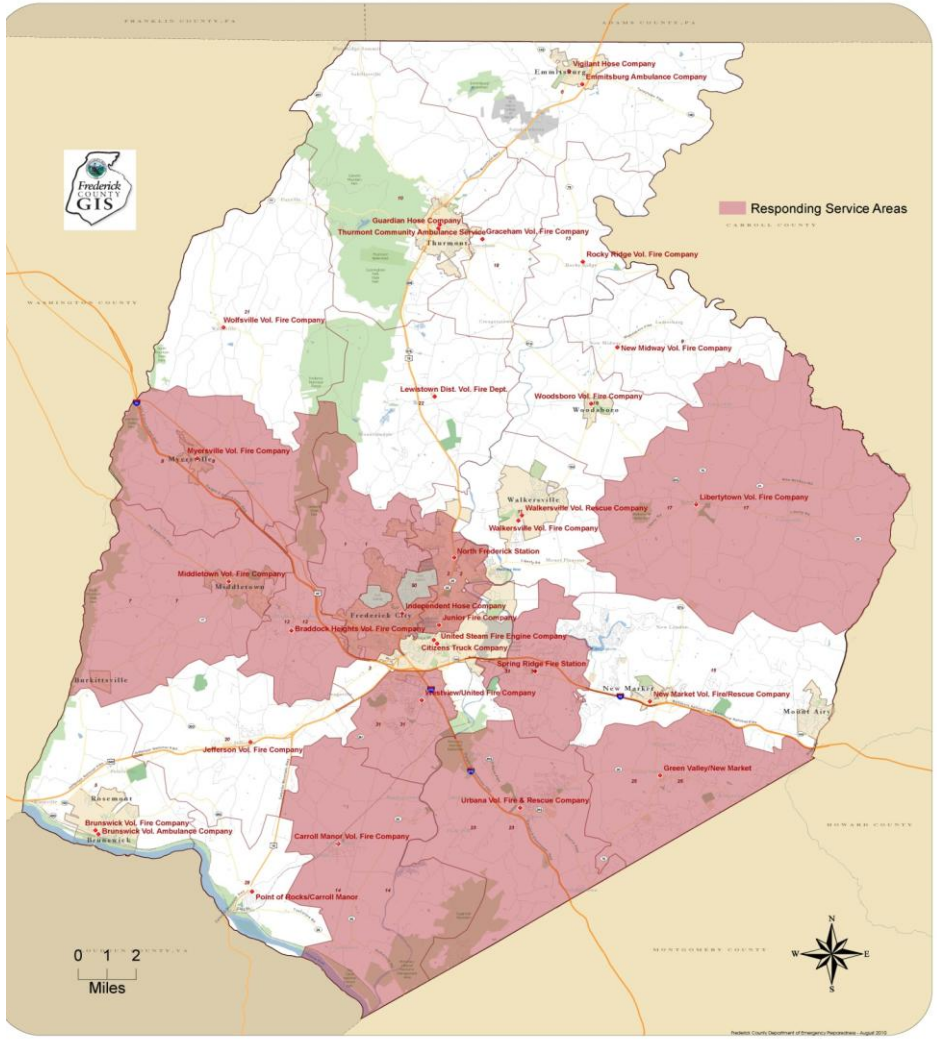
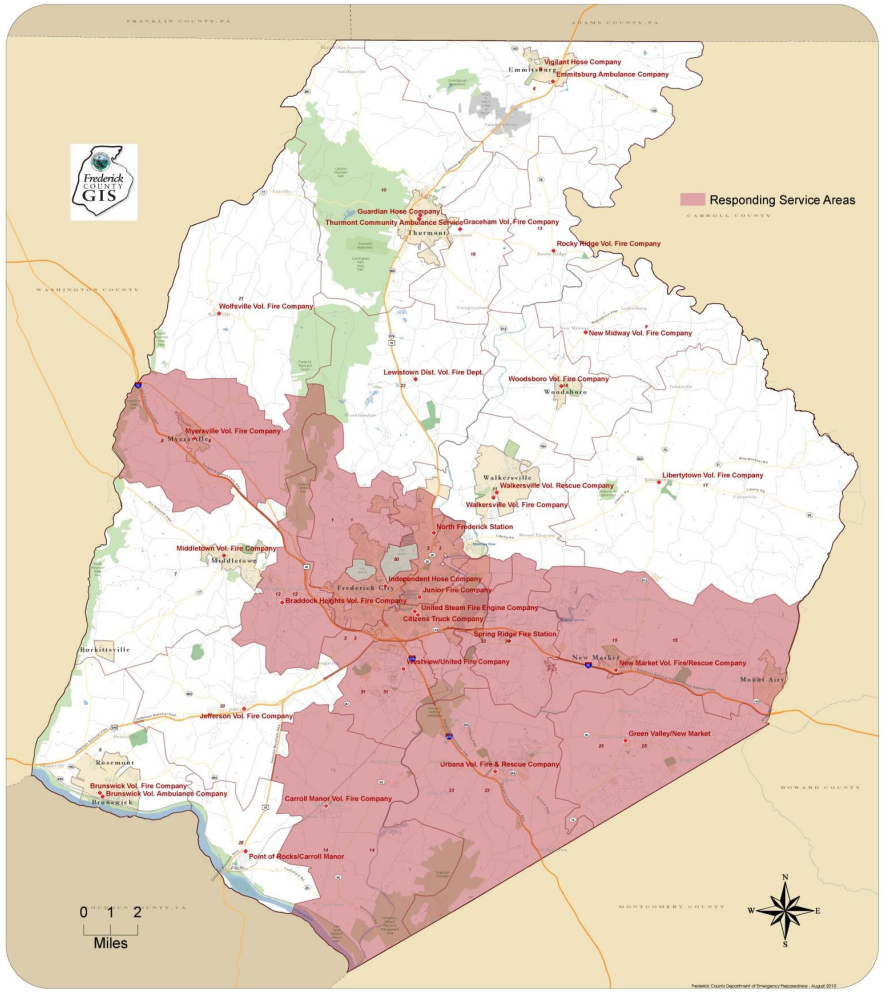


Figure 16

Up

Current Career Fire Deployment - Evening



Career Fire Deployment - Option 2 - Evening

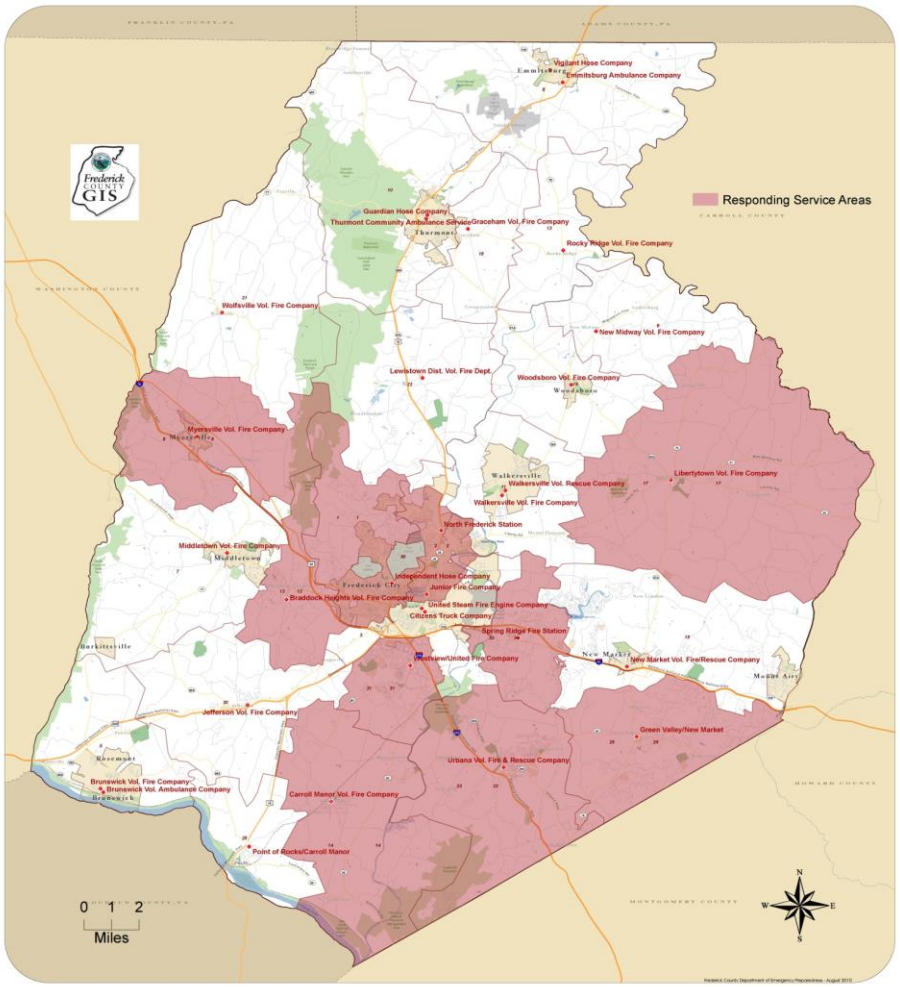


Figure 17

Evening Staffing = 6:00pm-6:00am and 24 hour

These maps reflect the diminished response coverage that will result from the de-staffing of five (5) fire-rescue stations. While not as drastic an impact as Option 1, this re-deployment also creates gaps in emergency response if volunteer personnel are not immediately available. This will be particularly true during weekday, daytime hours when the vast majority of volunteer fire / rescue personnel are unavailable due to their fulltime jobs.

While we will no longer be able to consistently meet our response time goals in many suburban locations, a dual dispatch of a career staffed station would lessen the impact of this re-deployment as compared to Option 1. Since Option 2 assumes that a volunteer staffed station may be unable to respond and the intent is to simultaneously dispatch the closest station with career staff support to provide an immediate response resource, this will require that stations in neighboring areas absorb this additional workload outside of their primary service area. Option 2 creates a ripple effect throughout the fire/rescue system by design and will add additional stress to apparatus, equipment and personnel in those stations that pick up this workload. Questions related to the inequities of the two–tax funding system are likely to rise if urban tax resources are routinely relied on for simultaneous dispatch into suburban areas and vice-versa. Additionally, the ripple effect would likely delay response times to other unrelated incidents while the closer-in units are deployed.

REDEPLOYMENT OPTION 3

Option 3 is a staffing plan that shifts the county to a staffing scheme that provides community based EMS staffing with "regional" fire response staffing 24/7. This plan could be initiated from current stations with existing tactical units, but this regional response system is designed to evolve over time to incorporate several changes in station locations and more aggressive use of hybrid firefighting tactical units to enhance overall service delivery capability. This plan requires a single fire tax approach for funding.

Under this plan:

- Seventeen (17) stations are staffed for emergency medical response.
  (de-staffs 4 ambulances from current staffing)
- Five (5) ALS medic units remain staffed, plus four (4) of the staffed ambulances are ALS ambulance units.
- Nine (9) fire response units are staffed to operate from 9 station locations
  (de-staffs 9 fire units from current staffing)
- Eleven (11) stations have no career staffing support
  (de-staffs 3 stations currently staffed)

Option 3 as designed eliminates 34 fulltime career positions. This downsizing de-staffs four (4) medical and nine (9) fire response units that are currently staffed. Seventeen (17) ambulances and nine (9) fire response units would remain career staffed on a 24/7 basis. Three (3) stations would be returned to all volunteer staffed operations.

The operational shift proposed under this plan moves our service away from cross staffing to a system of dedicated staffing of specific tactical units. This shift means that we would no longer sacrifice one service for the sake of responding with the other service.

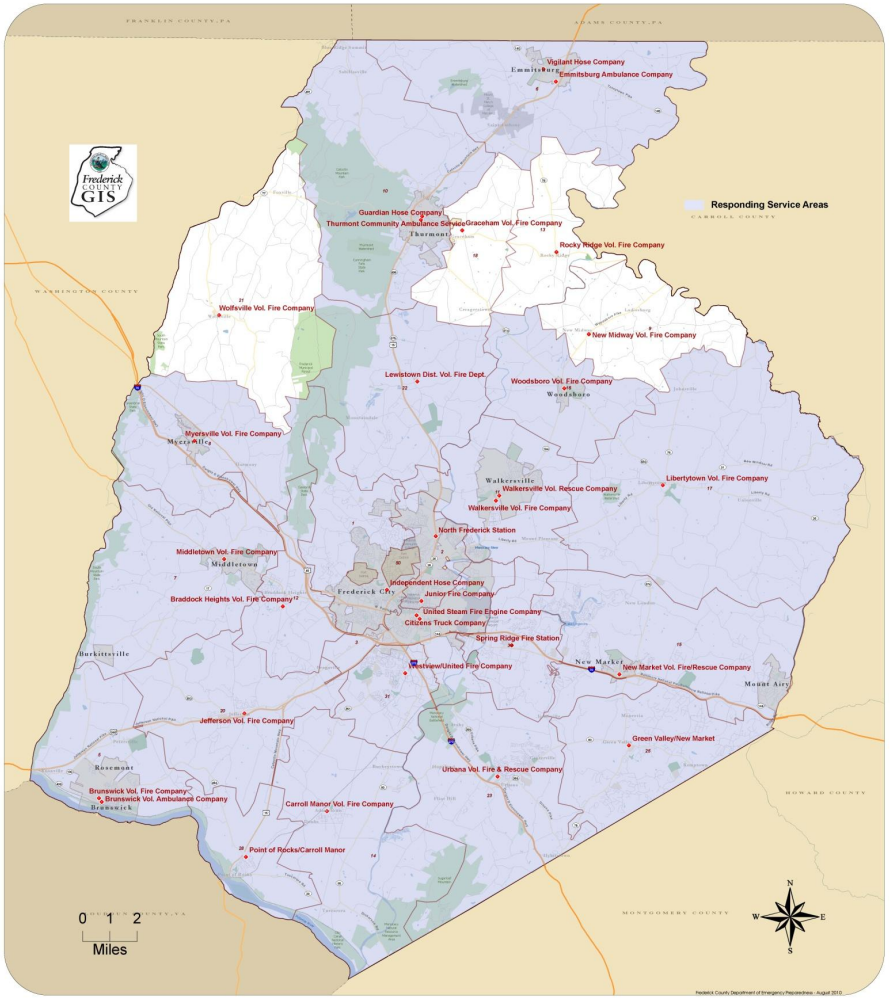
Dedicated staffing will increase tactical unit availability making regional response possible with less adverse impact on surrounding stations.
Option 3 is designed to identify and operate nine (9) stations as Regional Response Stations for fire response and maintain emergency medical staffing in a majority of stations countywide. While immediate fire response capability would be reduced, the automatic dispatch of the closest career staffed resource would help lessen the

impact. The adverse impact generated by Option 3 on our current service delivery capability is outlined below.

Response Time & Distance

GIS mapping of response time and distances that would result from this staffing option are depicted in Figures 18 and 19.

Current Career EMS Deployment



Career EMS Deployment - Option 3

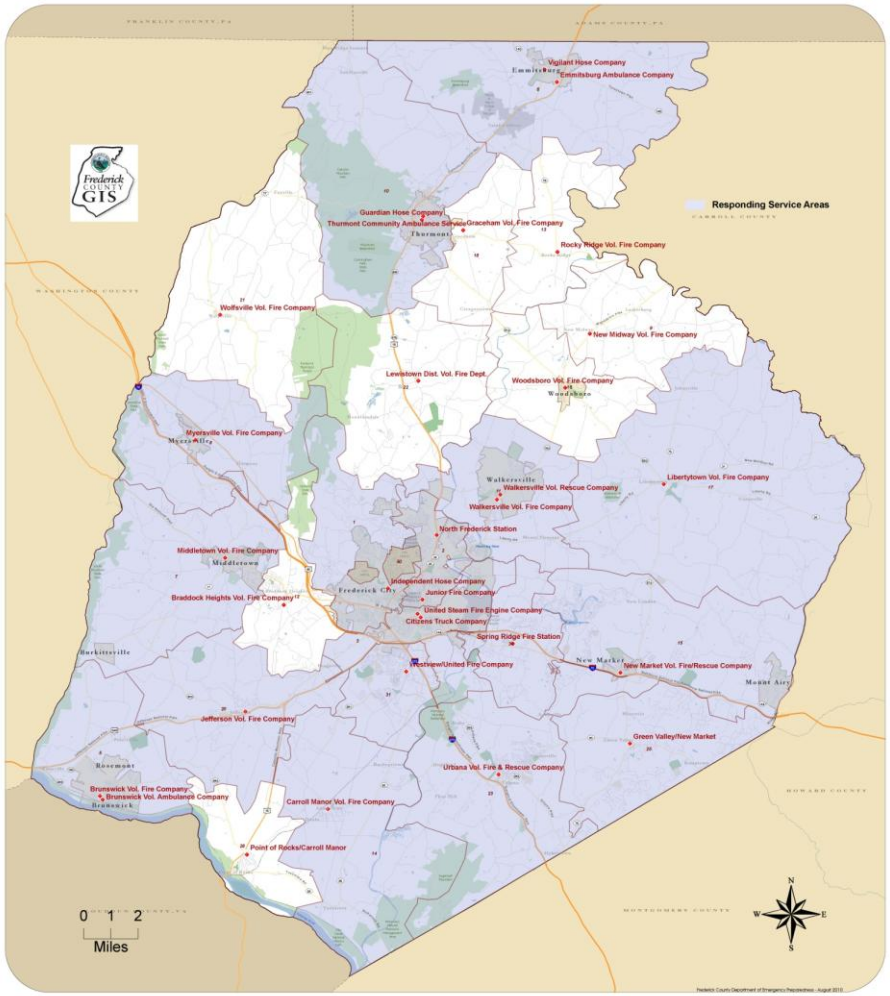
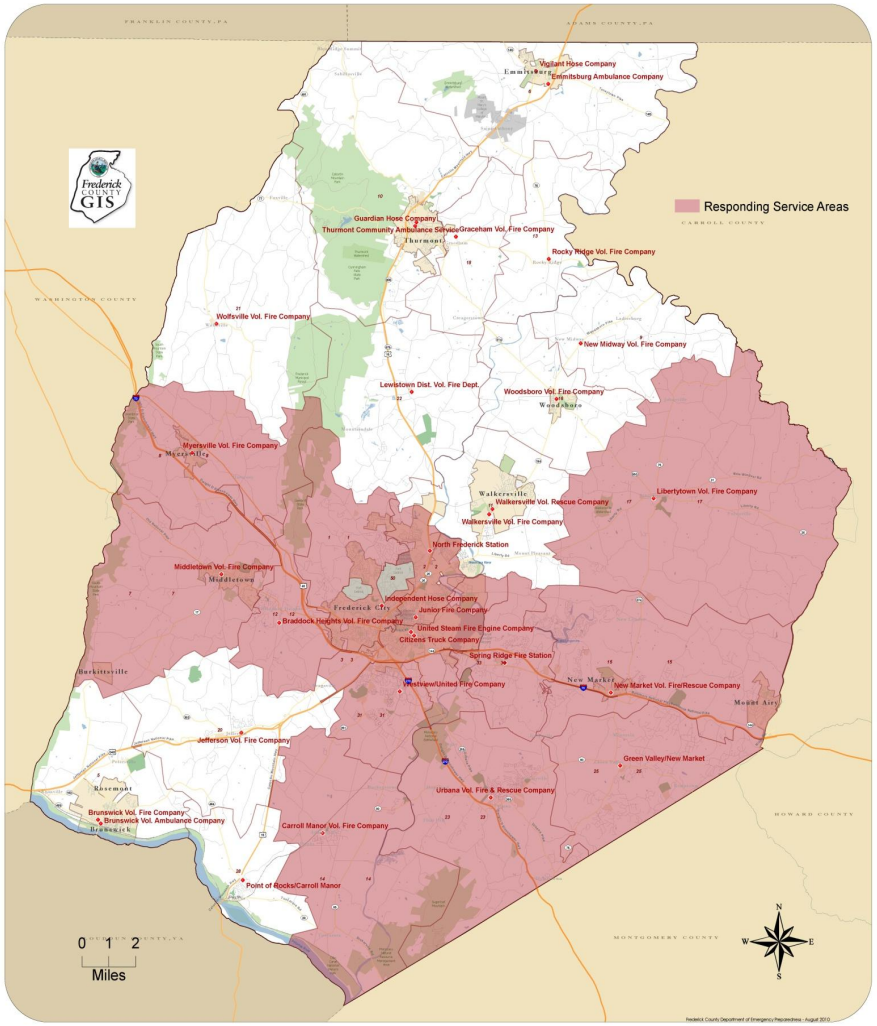


Figure 18

Current Career Fire Deployment



Career Fire Deployment - Option 3

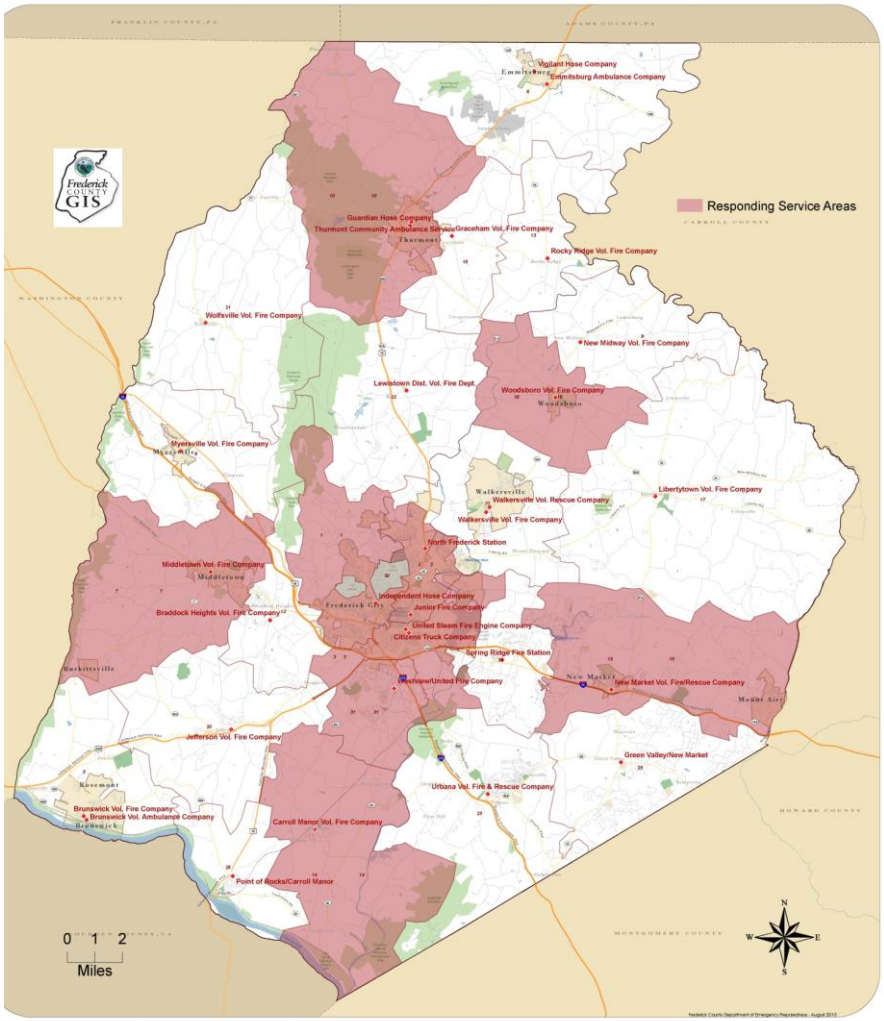


Figure 19

Service Delivery Impact

The service delivery impact related to Option 3 is also significant as this option will totally remove career staffing that currently provides emergency response support to three (3) fire-rescue stations. Our immediate response capability at these three (3) stations will be reduced, unless volunteer personnel are available in quarters. This will impact four (4) ambulances and nine (9) fire suppression units. This represents an 18% reduction in our current career ambulance response coverage and a 60% reduction in our current career fire response coverage.

Option 3 returns three (3) fire-rescue stations back to 100% volunteer response staffing only.

These locations include:

Braddock Heights*
Lewistown*
Point of Rocks*

*The availability of operational volunteers in these locations (Braddock Heights, Lewistown and Point-of-Rocks) is very low at the present time, especially during the weekday.

REDEPLOYMENT OPTION 4

Option 4 puts forward a staffing plan that was originally developed in 2002. This plan retains a mixture of 24-hour staffed stations and 12-hour staffed stations. This plan also maintains the two fire tax funding system.

Under this plan:

- Twenty-one (21) stations are staffed for emergency medical response. (no ambulances are de-staffed)
- Seven (7) ALS medic units remain staffed.
- Twelve (12) fire response units are staffed to operate from 12 station locations (de-staffs 3 fire units from current staffing)
- Eight (8) stations have no career staffing support (no stations currently staffed are de-staffed)

Option 4 as designed eliminates 18 fulltime career positions. This downsizing de-staffs three (3) fire response units that are currently staffed. Twenty-one (21) ambulances and twelve (12) fire response units would remain career staffed for either 12 or 24 hours.

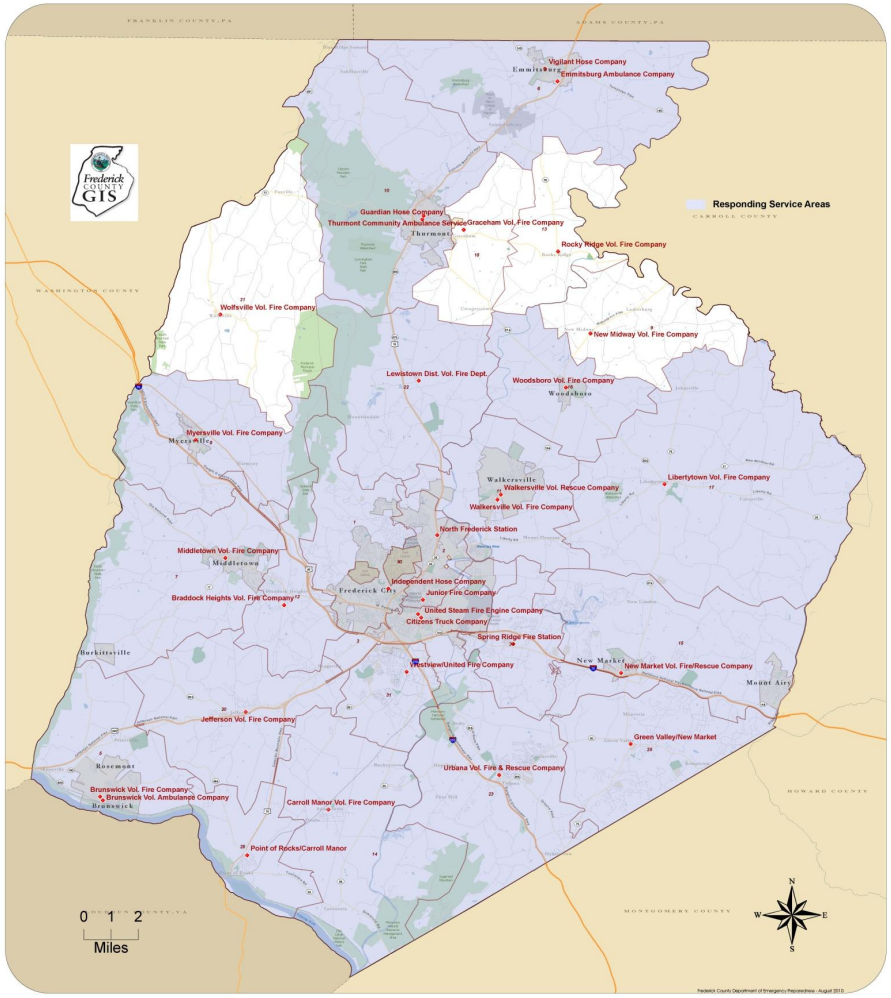
Option 4 is designed to maintain emergency medical staffing in its current configuration. While immediate fire response capability would be reduced in three (3) stations, Option 4 would have the least adverse impact on service delivery.

The adverse impact generated by Option 4 on our current service delivery capability is outlined below.

Response Time & Distance

GIS mapping of response time and distances that would result from this staffing option are depicted in Figures 20, 21, 22 and 23.

Current Career EMS Deployment



Career EMS Deployment - Option 4

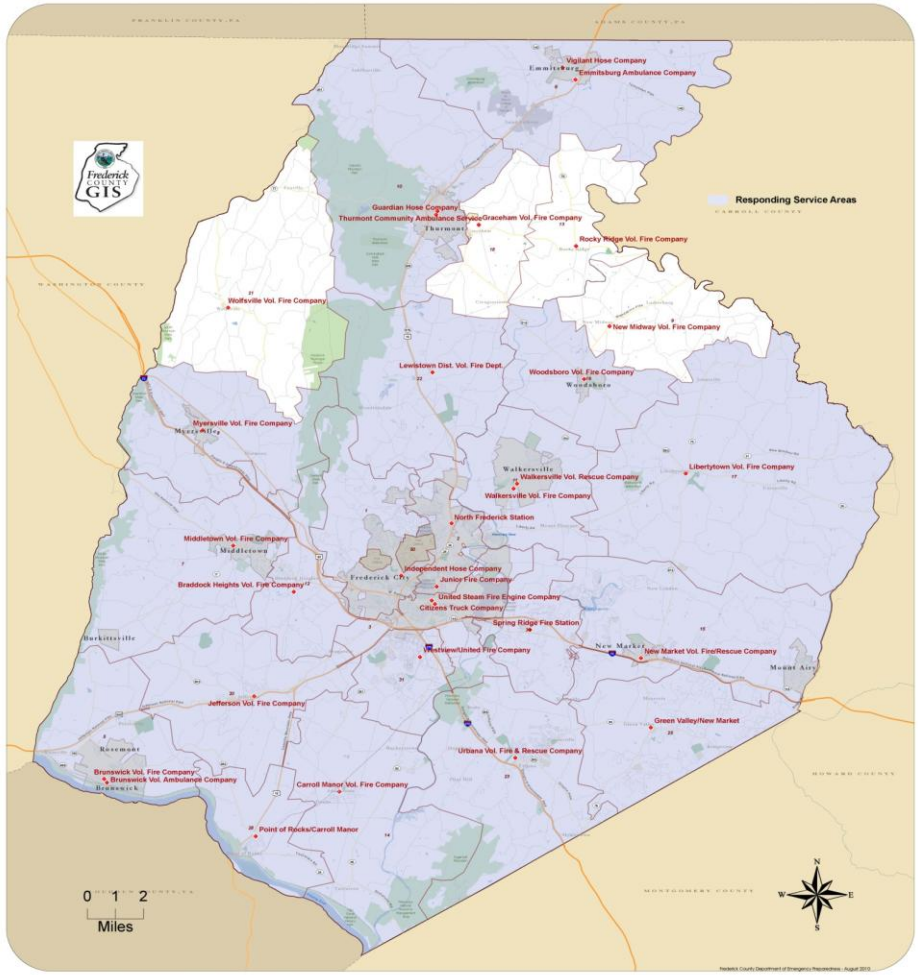
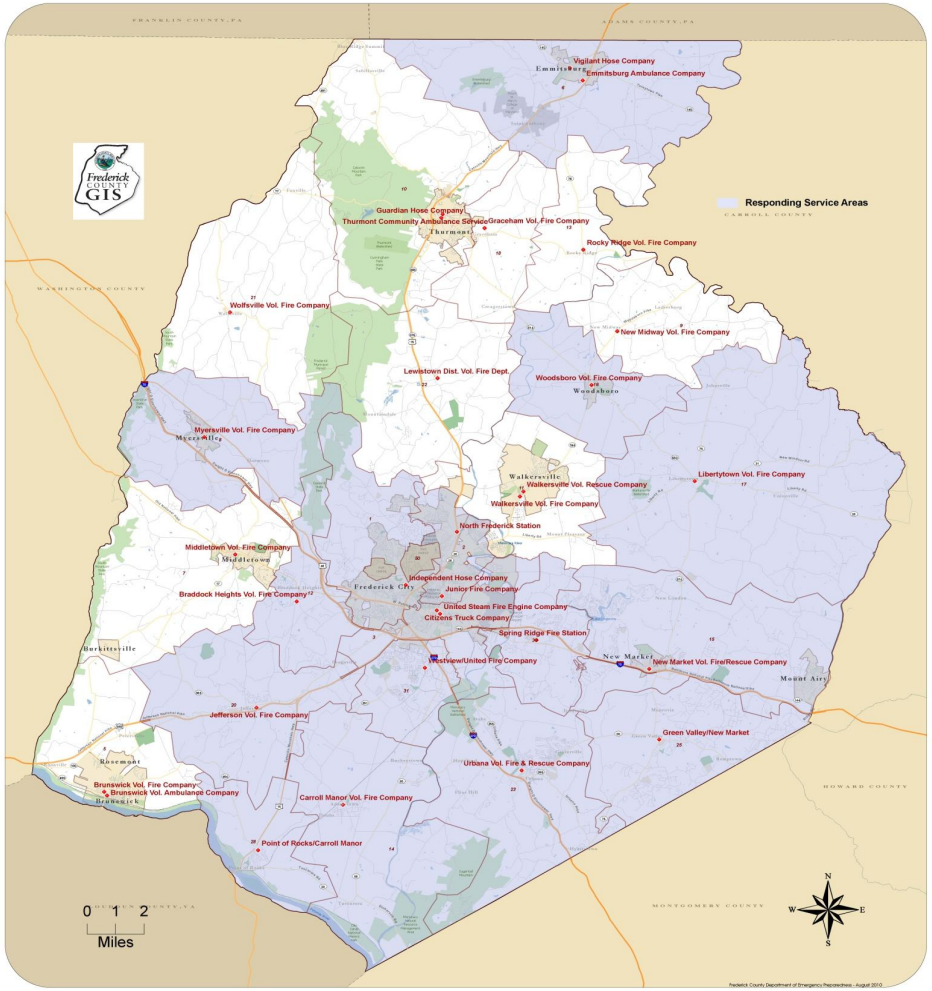


Figure 20

Upc

Current Career EMS Deployment - Evening



Career EMS Deployment - Option 4 - Evening

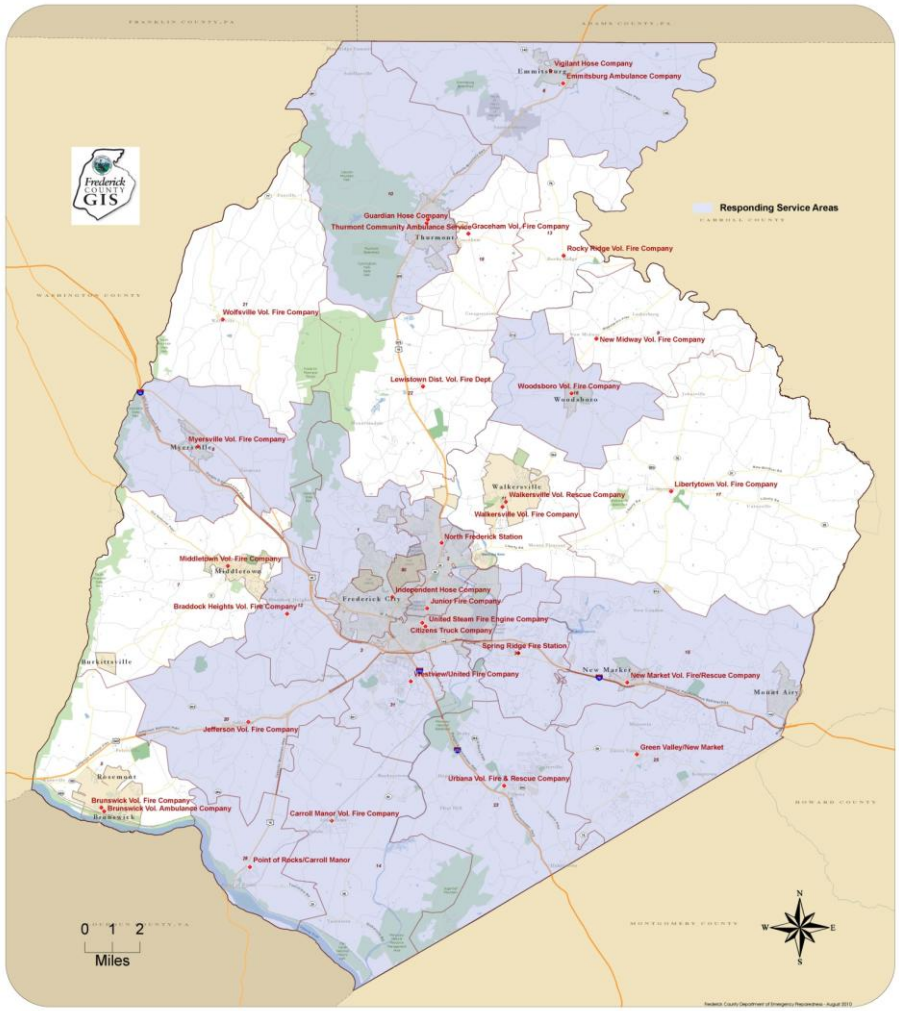
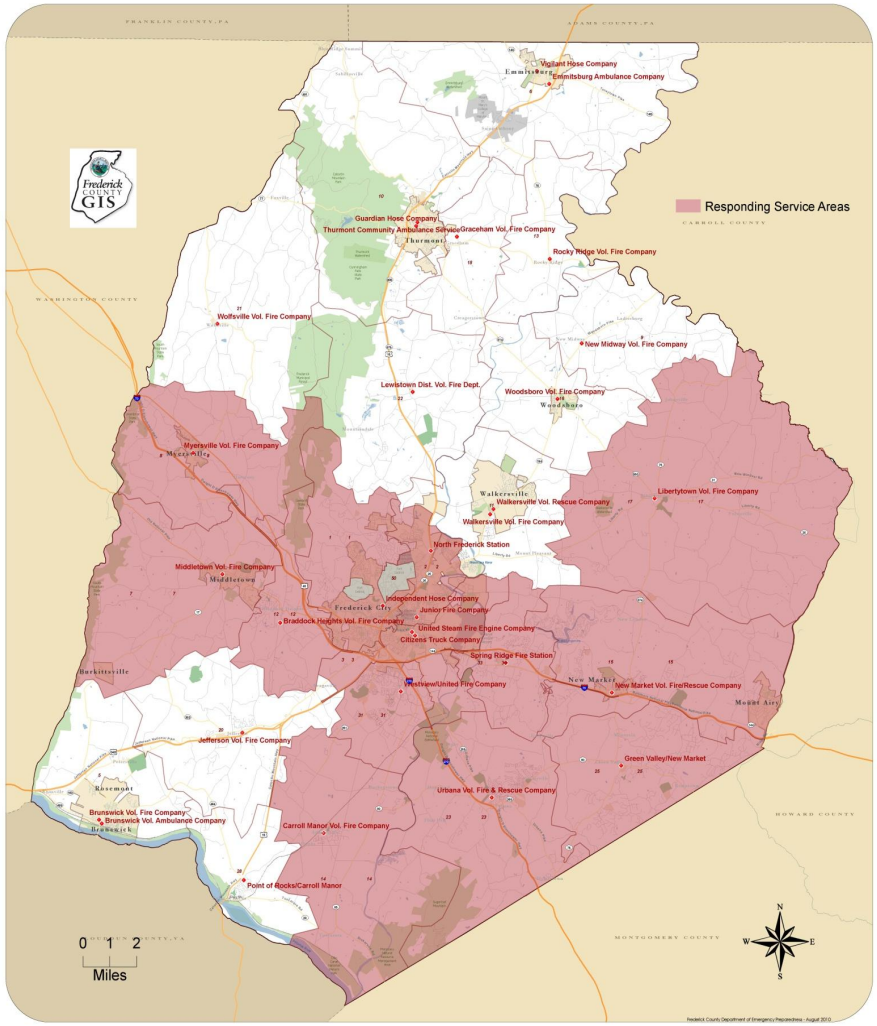


Figure 21

Evening Staffing = 6:00pm-6:00am and 24 hour weekends

Current Career Fire Deployment



Career Fire Deployment - Option 4

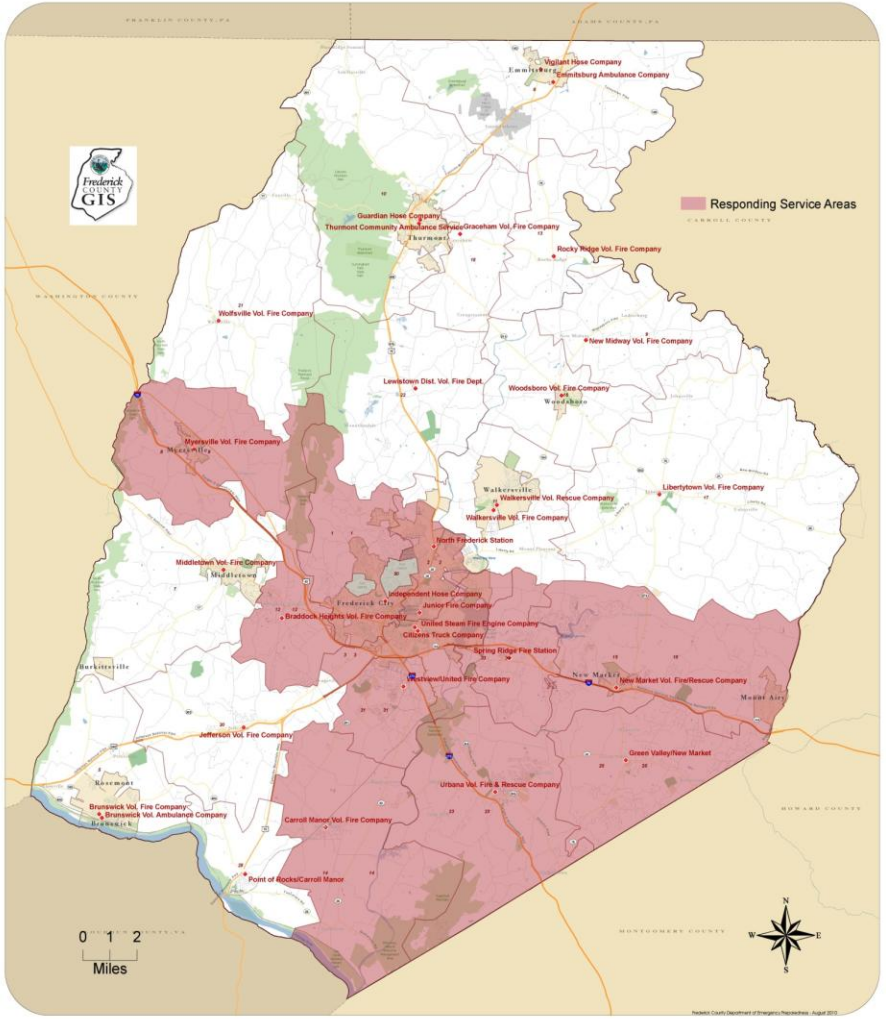
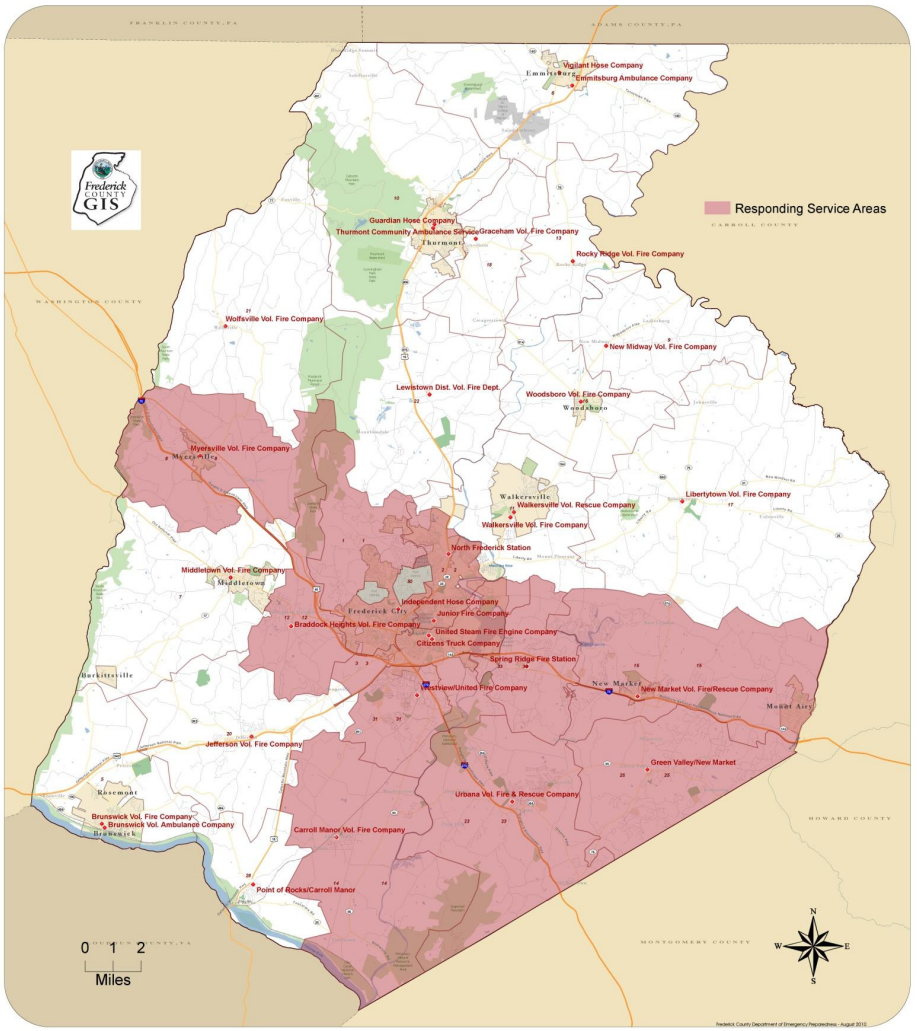


Figure 22

Current Career Fire Deployment - Evening



Career Fire Deployment - Option 4 - Evening

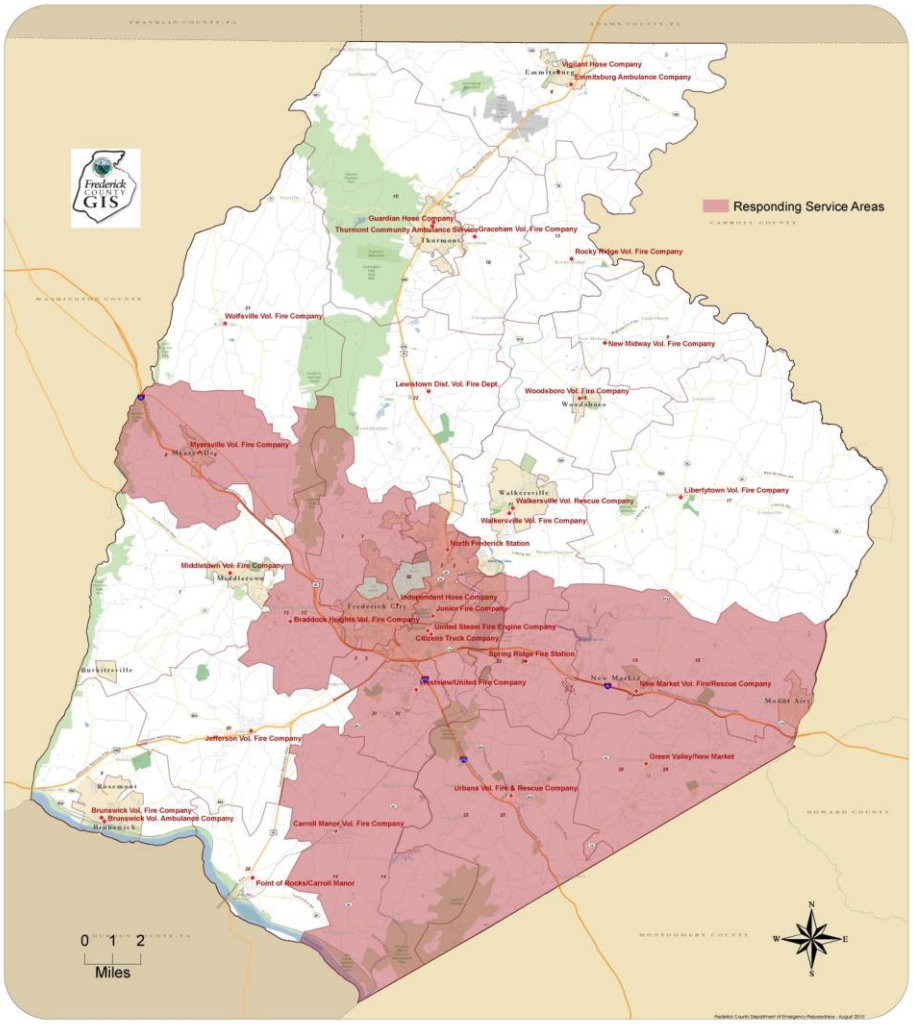


Figure 23

Evening Staffing = 6:00pm-6:00am and 24 hour weekends

Service Delivery Impact

Option 4 has the least service delivery impact. Option 4 maintains some level of career staffing in all stations that currently have career staff support. Option 4 does remove career staffing that is currently provided for fire suppression staffing at three (3) fire-rescue stations. Our immediate fire response capability at these three (3) stations will be reduced, unless volunteer personnel are available in quarters. This will impact three (3) fire suppression units.

There is no reduction in our current career ambulance response coverage and a 20% reduction in our current career fire response coverage.
Option 4 does not fully de-staff any fire-rescue stations that currently have career staff support.

Figure 24 provides a matrix that represents a side-by-side comparison of the four (4) re-deployment options outlined above. This matrix identifies the proposed staffing adjustments by station and identifies which stations are proposed to be de-staffed.

	REDEPLOYMENT OPTION 1			REDEPLOYMENT OPTION 2			REDEPLOYMENT OPTION 3			REDEPLOYMENT OPTION 4		
	EMS	FIRE		EMS	FIRE		EMS	FIRE		EMS	FIRE	
Station 1	2	3		2	3		2	3		2	3	
Station 2	2	DE-STAFFED		4	6		2	3		2	3	
Station 3	2	3		DE-STAFFED			2	3		2	3	
Station 4	DE-STAFFED				3			3			3	
Station 5	ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER		
Station 6	ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER		
Station 7	DE-STAFFED			2	1		2	3		2	DE-STAFFED	
Station 8	2	3		2	1		2	DE-STAFFED		2	2	
Station 9	ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER		
Station 10		3		ALL VOLUNTEER				3		ALL VOLUNTEER		
Station 11	ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER		
Station 12	2	DE-STAFFED		DE-STAFFED			DE-STAFFED			2	1	
Station 13	ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER		
Station 14	2	3		2	1		2	3		2	1	
Station 15	2	3		DE-STAFFED			2	3		2	2	
Station 16	DE-STAFFED			2	DE-STAFFED			3		2		
Station 17	DE-STAFFED			2	1		2	DE-STAFFED		2	DE-STAFFED	
Station 18	ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER		
Station 19	2			2			2			2		
Station 20	DE-STAFFED			2	DE-STAFFED		2	DE-STAFFED		2	DE-STAFFED	
Station 21	ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER			ALL VOLUNTEER		
Station 22	DE-STAFFED			DE-STAFFED			DE-STAFFED			2		
Station 23	2	3		2	1		2	DE-STAFFED		2	2	
Station 24	2			2			2			2		
Station 25	2	DE-STAFFED		2	3		2	DE-STAFFED		2	3	
Station 26	2			2			2			2		
Station 28	DE-STAFFED			DE-STAFFED			DE-STAFFED			2		
Station 30	2			2			2			2		
Station 31	2	3		2	3		2	3		2	3	
Station 33	DE-STAFFED			2	3		2	DE-STAFFED		2	3	
MEDICS	5			7			5			7		
BC		1			1			1			1	
EMS		1			1			1			1	
TOTAL FTE	33	26	59	31	27	58	39	32	71	41	31	72
X 3 Shifts x 1.5			266			261			320			324
DAYWORK ONLY x 1.5				10	1	18				8		12
TOTAL FTE's			266			279			320			336
POSITIONS REDUCED			88			75			34			18
SAVINGS POTENTIAL IN MILLIONS			6.34			5.4			2.5			1.3

CURRENTLY 354 TAX FUNDED POSITIONS - OPERATIONS
1 FTE = $72,000 SALARY, BENEFITS & OPERATING

DE-STAFFED = CURRENT STAFFING REMOVED
REGIONAL FIRE STATION
ALL VOLUNTEER = CURRENTLY ALL VOLUNTEER

Figure 24

UNINTENDED CONSEQUENCES OF RE-DEPLOYMENT

While significant cost savings can be achieved through downsizing career staff support to the county fire and rescue system, there will also be unintended consequences associated with this reduction in staff support that may not be immediately recognized.

- Returning so many fire and rescue stations to 100% volunteer staffed operations will have a ripple effect on all stations in the system because the number of supplemental dispatches is likely to increase due to slow or failed responses to incidents. Volunteer staffed stations that are currently meeting their response obligation will have additional pressure placed on their resources with the additional workload that is likely. In addition, stations that remain career staffed will be drawn further away from their primary service areas to back up stations that do not have adequate volunteer staffing available.
- Our response capability for hazardous materials incidents could be reduced since hazardous materials technicians are drawn from stations across the county during a significant hazardous materials incident. Career staff reductions will likely eliminate a number of certified hazardous material technicians from each shift.
- Our ability to maintain countywide coverage of fire and emergency medical services during a multiple alarm incident will be compromised to an even greater extent than under our current staffing level. This will be especially true during weekday, daytime incidents when volunteer availability is at its lowest.
- The current fire protection classification issued by the Insurance Services Office for Frederick City, Frederick County and our municipalities could very likely be downgraded as a result of career staffing reductions. The fire protection classification is a measure of fire suppression capability within a community and the classification assigned is used by local insurance companies to set their rates for fire insurance coverage. While all fire insurance policies use the fire protection classification as a factor in setting their rates, they are particularly relied upon to determine the insurance premium rates for commercial properties. Should a lowering of the fire protection classification occur, an increase in fire insurance policy costs to our citizens and businesses would result.

- Frederick County Division of Emergency Management depends heavily on the Division of Fire and Rescue Service to provide an even wider range of emergency support service during significant emergency events. Emergency Operations Center staffing, guide services for National Guard assets, logistics support for shelter operations, transportation for dialysis patients are all examples of support that DFRS personnel provided to the Division of Emergency Management during the February 2010 blizzards that impacted the county. Our ability to continue this level of ancillary disaster support would be limited.
- Volunteer fire and rescue corporations will also feel the brunt of reduced career staff support in other ways beyond emergency response. The corporations rely on career personnel to assure apparatus and equipment readiness, building upkeep, administrative support, community welfare activities and citizen problem solving.
- A removal of career staffing will drastically change the fire tax district configuration if a tiered or individual fire tax structure is used. Revenue projections will need to be recalculated and may show a further decline in system funding as a result of communities changing tax districts as career staffing is removed.

CAPITAL FACILITY AND EQUIPMENT

A portion of fire tax funds are expended to service the debt on capital facility and equipment bonds which have been issued over the years. Currently, $897,064 of the DFRS operating budget is expended on debt service payments for the following bond funded capital facility construction projects:

- Westview Fire Station #31
- Spring Ridge Fire Station #33
- Training Center renovation / expansion
- New Market Fire Station #15 – Design
- Green Valley Fire Station #25 – Design
- Middletown Fire Station #7 – Design
- Emergency Generator & Fire Alarm Systems CIP Project

$1,432,899 of the DFRS annual operating budget goes toward payments for capital equipment acquired through lease/purchase agreements. These projects include:

- 10 Engines
- 13 Ambulances
- 1 Tower Ladder Truck
- 1 Tractor Drawn Aerial Ladder Truck
- 10 Medic / Utility / Duty Vehicles
- Self-Contained Breathing Apparatus Replacement Program

Fire and emergency medical vehicles have been acquired using the "pay as you go" method of cash purchase from the capital budget allocation. Replacement vehicles using this purchasing method have recently included:

- 1 Engine
- 2 Tankers

Capital Facility and Equipment Alternatives

- Given the significant draw that cash purchases makes on the fire tax fund balance, the county should only purchase capital equipment using lease-purchase financing.
- Volunteer corporations who have accumulated significant cash reserves from ambulance billing monies must use these funds for ambulance replacement to the greatest extent possible.
- The county must evaluate opportunities for cost sharing with volunteer corporations for capital facilities and equipment as a means of reducing the current outlay of capital funds for facilities and equipment. Options such as making no interest capital loans available to volunteer corporations should be used more aggressively.
- The BOCC should adopt a policy of not supporting separate fire and ambulance facilities within the same community going forward. Future facilities should be combined fire and ambulance facilities.
- BOCC should reconsider the implementation of a fire service impact fee related to new development as a means of providing capital facilities and equipment.
- The Division of Finance should assist DFRS in undertaking an analysis to determine if a re-structuring of the current capital facility and equipment debt might lower the debt service payments. If possible, this would help further reduce the operating budget.

OPERATING BUDGET

As noted in the problem statement, DFRS has made significant efforts to reduce the agency operating budget over the past two fiscal years. FY 2010 operating budget reductions totaled $1,498,699 and the approved FY 2011 budget was reduced an additional $1,099,050.

Even with the reduced levels of funding approved during the budget process, DFRS has worked diligently to further reduce actual expenditures during the course of the fiscal year. Closeout of the FY 2010 budget will reveal that DFRS was able to reduce actual spending by an additional $3.4 million dollars. A significant portion of this savings was due to the self-imposed hiring freeze of vacant uniformed firefighter positions.

The task force reviewed the DFRS operating budget and feels that some additional savings could be achieved with changes in current policies as noted below.

Protective Clothing

DFRS currently issues a full set of personal protective clothing to new volunteers who enter the service, but their participation is very limited until basic training is complete. Many less active volunteers also maintain a personal issue of protective clothing.

It may be possible to further reduce expenditures for protective clothing if the policy related to when a volunteer member received a personal set of protective clothing was changed.

New and less active volunteers could share the use of protective clothing that is assigned to a “Grab Rack” in the fire station. The grab rack would have a variety of sizes that could be used as needed. New volunteers could use grab rack gear while in training and less active volunteers would have protective clothing available to them for the occasional training or incident response they attend. The task force feels this change in policy would result in numerous sets of personal protective equipment being returned to our inventory and may help us avoid the purchase of additional sets of gear in the short term.

Fleet Operating Expenses

Frederick County enjoys a very robust fleet of contemporary fire and emergency medical service vehicles. A majority of these units were purchased by individual volunteer corporations and have been acquired without the county having an approved tactical unit deployment plan in place. As the fleet has expanded over the years, the operating costs for fuel, repair, preventative maintenance and insurance have continued to rise. The task force feels that fleet costs could be reduced if the county only provided financial support for those vehicles deemed necessary as defined by a tactical unit deployment plan developed in conjunction with the fire and rescue association.

Volunteer corporations would not be required to remove *"unapproved"* vehicles from the fleet, but they would be required to fund all operating costs related to the vehicle in question from volunteer corporation funds.

This policy change could result in an overall reduction in fleet operating costs, with exact savings being dependent on how many vehicles are removed from county support.

Fleet Service Charges

Volunteer fire and rescue corporations continue to express frustration with charges they must pay from their allocated funds for vehicle repair and maintenance at the county fleet service facility. This is particularly true when repeated charges occur for repairs related to a recurring mechanical issue.

The task force would like to see a formal evaluation undertaken to provide a comparative analysis of fleet service charge practices against private sector vehicle repair and maintenance service charge practices and costs.

Indirect Costs Allocation

The task force is very uncertain about how the indirect cost allocation is calculated and what services this payment specifically funds. We believe an internal audit of the indirect cost charges to DFRS would clarify this back charge and may reveal opportunities for savings.

Overtime Expenditures

In FY 2010, the DFRS budget for overtime was reduced by $800,000. In addition to this budget reduction, an additional savings of $720,000 in actual overtime expenditures was achieved. DFRS has remained vigilant with its staffing and leave management practices in order to gain the cost savings that have been realized.

DFRS continues a self-imposed hiring freeze of uniformed firefighter and paramedic positions in order to generate as much savings in salary and benefit costs as possible. This level of savings is significant and is a direct benefit to deficit reduction. It is important that DFRS strike the right balance of overtime expenditures that might be generated by carrying too many vacant positions. The DFRS Director has briefed the Board of County Commissioners on the cost savings being realized and they have concurred with the delayed hiring strategy. While some upward creep in overtime expenditures is likely to occur, net savings in salary and benefits should be greater than the slight increase in overtime expenditures.

In the past, DFRS had developed a pool of qualified personnel who worked for DFRS on a part-time basis. Over the years, this pool of part-time fire and rescue providers diminished to a point where only a very few remain today.

If we are to sustain long term savings in overtime expenditures, part of the leave management strategy must involve rebuilding of the cadre of part-time employees. The ability of part-time employees to operate successfully will depend on ensuring that qualifications and training are directly comparable to our fulltime employees.

ALS Incentive Pay

In an effort to assist our ability to retain certified Advanced Life Support medical providers, Frederick County has provided additional compensation as a retention incentive. This compensation has taken several forms as noted below:

- $2,500 incentive pay for all career members of the Division who are licensed Advanced Life Support medical providers.
- $4,000 incentive pay for licensed CRT-I / EMT-I certification.
- $8,000 incentive pay for licensed EMTP certification.

Past practice was to provide the $4,000 and $8,000 stipend without regard as to whether the employee was assigned to a position where the ALS certification was regularly used or not. This level of incentive pay was provided regardless of assignment.

- The recently ratified Memorandum of Understanding between the Frederick County BOCC and the Frederick County Career Firefighters and Paramedics Association included a provision that only career employees actually assigned to a position that requires ALS certification would receive the $4,000 or $8,000 stipend, respectively. This policy change will result in a $43,000 operating budget reduction.

OPERATIONAL PARTICIPATION BY VOLUNTEERS

Volunteer fire and emergency medical service providers have been the mainstay of the Frederick County fire and rescue delivery system for nearly 200 years and their sacrifice, dedication and commitment to serving others remains worthy of great praise. Unfortunately, as the county has grown and as the dynamics of social pressures on our citizens have changed over the years, a fire and emergency medical service operated solely by community volunteers is no longer a reliable service delivery model in many communities in Frederick County. This is especially true for the delivery of emergency medical services due to the significant service demand.

Many volunteer fire and rescue corporations throughout the county have had to make the very difficult decision to seek career staff support from the county government. Such decisions are not made lightly and often by the time a volunteer corporation reaches this decision, it is because the lack of available volunteer personnel has reached a critical level and response services are regularly failing.

Over the years, Frederick County has evolved into a “combination” fire and rescue service. This form of fire and emergency medical delivery system employs career fire and emergency medical providers who work in concert with community volunteers. This system provides a minimum complement of on duty career employees for immediate response to day-to-day incidents, joined with a cadre of operational volunteers to bolster staffing when needed for a significant incident. The combination fire and rescue service is widely used across the country and has proven to be the most cost-effective form of reliable fire and emergency medical response system.

The combination volunteer/career system serves Frederick County well, however; many communities in the county continue to struggle with the availability of operational volunteers. The Daily Incident Participation Summary (DIPS) reports for FY 2010 reflect that on average, 25.6% of the personnel responding to fire incidents in the Urban Tax District areas were volunteers and 54% of the personnel responding to fire incidents in the Suburban Tax District areas were volunteers. For emergency medical incidents, 1% of the personnel responding in the Urban Tax District areas were volunteers and 57% of the personnel responding to emergency medical incidents in the Suburban Tax Districts were volunteers.

The downsizing of career staff support proposed by all four (4) redeployment options outlined in this report returns several fire and rescue stations to 100% volunteer staffed service delivery. These proposals come at a time when the operational strength of the volunteer segment of our service will be challenged to provide reliable service delivery 100% of the time in communities where career staffing is proposed to be eliminated.

As further evidence of this lessening of volunteer availability, during the FY 2011 budget process, Frederick County volunteer fire and rescue corporations requested forty (40) additional career fire and emergency medical personnel be employed to increase staffing in several stations and to expand hours of career staffing coverage in others.

Volunteer Recruitment & Retention

Regardless of whether career fire and emergency medical positions are eliminated, Frederick County needs to undertake an aggressive program to re-energize the volunteer segment of our fire and emergency medical service.

This program must combine a number of critically important recruitment initiatives that must be sustained over time and which at a minimum should consist of:

- An ongoing, county-wide volunteer recruitment campaign that targets the specific demographic of citizen for each aspect of service delivery:
    - Volunteer Firefighters
    - Volunteer Emergency Medical providers
    - Volunteer Administrative Support personnel
- The volunteer recruitment campaign should be multi-media in its design with a heavy emphasis placed on the use of electronic mediums since this is where today's young people spend their time. Our recruitment advertising strategy should include:
    - A countywide recruitment theme to anchor the program.
- Electronic Media
    - Dedicated Volunteer Recruitment Website
    - Online Volunteer Application Process
    - Greater Use of County Cable Channel 19 & City Channel 99
    - Cable Television Commercials

    - Movie Theater Trailers
    - Radio Advertisement
    - YouTube Videos
    - Face book Page
    - Twitter Page
- Print Media
    - Posters
    - Brochures
    - Six panel pamphlets
    - Newspaper Ads
    - Newspaper Articles
    - Community Newsletter Articles
- Static Display
    - Banners for Fire Station Events
    - Highway Billboard Ads
    - Bus and Taxi Ad Boards
    - Lighted Sign Boards in front of stations
    - Volunteer business cards with membership contact information
- Implement & Support Programs that aid Volunteer Recruitment
    - Citizen Fire Academy
    - Fire Corps Program
    - Fire-Rescue Cadet Program
- Incentives that promote an increased level of operational participation should be considered:
    - Length of Service Award Program (LOSAP) point system should be re-structured:
        - Shift to an age based system where credit earned by younger members requires more operational points to be earned to obtain a credited year of service
        - Older members should earn points through greater administrative support duties
    - Consider the development of a system where a specified amount of operational service qualifies a member for an exemption from paying the county fire tax

- Christmas Bonus System – An annual end of year cash stipend for meeting specific operational service requirements that must be met throughout the year
- Explore the feasibility of establishing a "Paid-On-Call" system that compensates operational volunteers for emergency incident response
- Fire and Rescue Association should negotiate discounts for goods and services from local retail establishments for operational volunteers
- Provide volunteers the option to participate in Frederick County group life and health insurance programs
- Access to the county Employee Assistance Program
- Free access to fee based county parks & recreation programs/activities
- Increased awareness/recognition by the county government

Administrative/Auxiliary Volunteers

In addition to our need for operational volunteers, our volunteer corporations have a continuous need for volunteers who serve in administrative and support roles within their organizations. Administrative/Auxiliary members provide relief from the need to require operational members from performing double duty (operational and administrative). By relieving operational members of the need to perform administrative and fund raising duties, operational members can devote more time to training and operational participation. With this value in mind, administrative/auxiliary volunteers should be viewed as being equally important in supporting fire and rescue operations and recruitment/retention of these members should also be emphasized.

Volunteer Re-Entry Process

Frederick County is home to many former volunteers and career firefighter retirees. This is a pool of candidates that has potential to re-enter the volunteer service if a reasonable "re-entry process" can be established. Former volunteers should be targeted by their former volunteer corporation in an effort to gain their re-entry into the service.

Many career retirees tend to drift back toward the fire service at some point after retirement. We should recognize the potential of this particular group of candidates and target them for re-entry into our service as both operational and administrative volunteers.

CURRENT FUNDING STRUCTURE AND RELATED ISSUES

Fire Tax History

Frederick County adopted a dedicated fire tax system as the primary revenue source for its fire and emergency medical system in 1989. The fire tax system initially began with a specific mill rate assessed for each of the fire and rescue service areas that had county career staff assigned to their station. Fire district tax revenue was originally designed to fund personnel and capital expenses. Operating expenses and administrative staff costs remained funded through the general fund. The individual fire tax system made system management very complicated, tied funding to specific emergency response areas, created financial consequences to response boundary adjustments, and restricted career staffing assignments.

In 2002, the individual fire tax rates were re-evaluated and revised into a two-fire tax system. Service areas with no career staffing or only daytime career staffing support were grouped into the "Suburban Fire Tax" district, and those service areas that had twenty-four hour career staffing assigned were grouped into the "Urban Fire Tax" district. Revenue from the two-tax-district system was also originally structured to fund personnel and capital expenses only.

Like the individual tax-district system, the two tax district system remains controversial and creates its own obstacles to effective fire and emergency medical staffing and system management.

- By design, any tiered funding structure works against a unified fire and rescue system.
- Questions of equity in the actual dollar value of county support received for taxes paid abound across tax districts.
- Emergency dispatch assignments regularly cross tax district boundaries. This is especially true for specialized tactical units which regularly respond to areas well beyond their primary tax district area.
- Special accommodations are needed to expand career staffing coverage in suburban tax district areas, even on a temporary basis.
- Firefighter transfers between suburban and urban stations must be followed with formal personnel actions to change cost centers of the affected personnel.

- Many administrative support positions are partially funded by both tax districts, creating budgetary confusion.
- The movement of operating expenses into the fire tax structure will now require a formula to determine how operating costs for suburban and urban stations will be proportioned.

The debate regarding which tax structure should be used to fund the provision of fire and emergency medical services has continued for many years. This debate has generated a great deal of stress within the fire and rescue service and our community at large.

There are several tax structures under discussion by the fire and rescue stakeholders and the Board of County Commissioners. These tax structures include:

- Return to an individual fire/EMS tax district rate structure
- Retain the current two-tax-district structure
- Adopt a single countywide fire-tax rate
- Return fire and EMS system funding to the general fund

Each tax structure has its own advantages and disadvantages, noted as follows:

Individual Fire/EMS Tax District Structure

- Advantages
    - Each community funds its own level of fire and emergency medical service costs.
    - Individual tax rate is adjusted to meet changing needs of a specific community.
    - Tax rate adjustment in one community does not impact other communities.
    - Local citizens in a specific community can influence their tax rate.
    - Can reward a community that puts forth a strong volunteer fire and rescue effort with a lower tax rate.
- Disadvantages
    - Funding resources are determined by a geographic boundary of service delivery that is subject to change as road improvements are made or additional fire/rescue stations are made operational to meet

growing service demands. Needed change is often resisted by current volunteer service providers out of fear of lost revenue, independence and organizational viability.

- Tax rates on individual residential and commercial property will vary widely across the county due to the wide variation in the assessable base of a given community.
- Development that drives the assessable base is often a function of land-use policies which the community itself does not control.
- Fire and EMS operational decision making is influenced by financial impact on revenue and expenditures. This can cause service delivery to be impacted.
- Financial management is more complicated, cumbersome and confusing.
- Funding system does not reflect the synergy of how fire and emergency medical services are actually delivered throughout the county, without regard to community boundary.
- Perceived inequity in cross tax district service delivery leads to claims of one tax district subsidizing the cost of service delivery in the other tax district.

Two-Tax-District Structure

- Advantages
  - Tax Rate is comparable in communities with like fire and EMS needs (Suburban / Urban).
  - Tax Rate reflects a difference in the level of county support provided to a community.
  - Individual communities can change tax district without impacting other communities.
  - Local citizens in a community can influence their tax rate.
  - Can reward a community that puts forth a strong volunteer fire and rescue effort with a lower tax rate.
  - Less cumbersome to manage than individual tax rate structure.
- Disadvantages
  - Taxes paid by individual residential and commercial property owners may not reflect the true service costs of a given community.

- Fire and EMS operational decision-making can be influenced by financial impact on revenue and expenditures, causing optimal service delivery to be impacted.
- Although less so than with individual tax districts, financial management is more complicated, cumbersome and confusing than some other tax structures.
- Funding system does not reflect the synergy of how fire and emergency medical services are actually delivered throughout the county, without regard to community boundary.
- Perceived inequity in cross tax district service delivery leads to claims of one tax district subsidizing the cost of service delivery in the other tax district.

Single Tax Rate

- Advantages
  - Reflects the reality that fire and EMS services are not solely needed where people live, the service follows our citizens across the county where they work and play.
  - Single-tax rate applied equally to all property owners.
  - Funds the fire and emergency medical service delivery system in a manner that reflects the synergy of a countywide service operated for the common good of all, like all other county government services.
  - Removes financial obstacles that can hinder a unified fire and rescue system.
  - Operational decision-making related to service delivery between communities not influenced by concerns of lost revenue.
- Disadvantages
  - Taxes paid by individual residential and commercial property owners may not reflect the true costs of services received by a given community.
  - A change in tax rate needed to fund system growth in a specific community affects all tax payers countywide.

- Revenue from communities with a significant assessable base tends to subsidize the cost of service delivery in smaller or less developed communities.
- Community efforts to support its local fire and emergency medical service are not directly rewarded through lower taxes paid.
- Costs of service delivery expand rapidly in growth areas, yet all pay for the increase in service delivery equally.

General Fund

From the perspective of advantages and disadvantages of this funding structure, returning the fire and rescue service to a general fund agency would be similar to using a single-tax rate.

The most significant difference would be that fire and rescue funding would not be from a revenue source that is dedicated to the delivery of this service.

OTHER REVENUE SOURCES

In addition to looking at expenditure reductions, the task force also worked to identify additional sources of revenue that could be explored by the BOCC.

Ambulance Transport Insurance Billing

As the allowable charges are increased by Medicare and Medicaid, local governments who bill insurance companies for ambulance transportation have the opportunity to revisit their ambulance transport rate structure in order to ensure that revenue received matches the cost of service delivery to the greatest extent possible. DFRS should conduct an analysis of current service delivery expenditures for comparison to our current fee schedule. This analysis should also include a comparison of our rates to those being charged in other jurisdictions in the region.

Emergency Response Cost Recovery

As with insurance billing for ambulance transport, there is a growing trend across the country to bill insurance companies for response services related to other types of emergencies. The companion program to ambulance transport billing recovers revenue from insurance companies for other types of emergency responses. This program submits an invoice to a party's insurance carrier to recover some costs associated with an emergency response. Automobile insurance carriers are billed for responses to vehicle crashes and vehicle fires; fire insurance companies are invoiced for responses to structure fires, etc.

Like ambulance transport insurance billing, this system also uses a third-party-billing company to manage the billing process. Service fees would be based on a fee schedule and billing policies/practices adopted by the BOCC.
Based on preliminary incident response data supplied to a billing vendor, we have received a conservative net revenue potential of $500,000.

Hazardous Use Permit

Frederick County currently bears all costs associated with maintaining an operationally ready hazardous materials response team. The county hazardous materials team is equipped with specialized detection and monitoring devices, hazardous chemical leak and spill control and containment equipment, chemical

resistant personal protective equipment, a chemical reference library, and other devices specific to mitigating a hazardous material emergency.

The task force believes that those businesses and industries that bring an increased risk of hazardous material release to our community should help bear the cost of maintaining the special response capability that we must have available. A requirement for a Hazardous Use Permit should be added as an amendment to the County Fire Prevention Code. This code amendment should identify the types and quantities of hazardous material stored, used or transported within Frederick County that would require an annual "Hazardous Use Permit" be issued upon inspection. A reasonable permit fee would be assessed for this annual permit and the revenue would help offset funds used to maintain a fully trained and well equipped hazardous materials response team.

Cost Recovery for Hazardous Materials Response

In addition to the implementation of a Hazardous Use Permit, the BOCC should authorize DFRS to implement after-action billing of the party legally responsible for a hazardous material release. After-action billing of the responsible party is authorized under both federal and state law, and this tool should be used to relieve the county from absorbing the costs associated with an actual response.

The cost of consumable materials used, vehicle and equipment deployed, and personnel costs specifically related to the incident can all be recovered. In the vast majority of cases, payment would be made by the responsible party's insurance carrier.

Impact Fees Related To New Development

Increasing growth in development and population will drive the need to expand the fire and rescue service delivery system in Frederick County to meet increased service demand.

Previously, the BOCC has discussed the need to create an impact fee model specific to fire and rescue services. The task force feels that the work to develop such a model should be re-considered and authorized by the BOCC.

The fire-rescue impact fee model should be designed to support the funding needed for capital facility, apparatus and equipment and appropriated through the Capital Improvements Program budget process.

It is reasonable to expect that those who will profit from the development and who bring the growth in population to Frederick County, share in the cost of providing the capital facilities and equipment that will be needed to deliver the emergency response services required.

Transient Tax Revenue

The transportation arteries that traverse Frederick County from both North-South and East-West corridors bring a transient population through the county on a daily basis. Likewise, the many historical and recreational attractions contribute to a significant number of visitors to the county that spend days or weeks enjoying a wide variety of activities. This transient population brings with it an associated workload for our fire and rescue services. Revenue sources that target the transient population could provide a means to help offset service delivery costs to non-residents. The BOCC may wish to consider an adjustment to one or more existing transient taxes with a portion of the revenue dedicated to fire and emergency medical services, or the implementation of a new transient tax to help offset the cost of fire and rescue services.

CONCLUSIONS

The Board of County Commissioners requested a very short time frame for this evaluation to take place. While the task force worked aggressively, many of the conclusions reached in this report represent a starting point for a more detailed analysis of specific issues raised. With that in mind, the Alternative Service Delivery Task Force has reached the following conclusions regarding the funding and service delivery options evaluated:

1. The shift of operating expenses from the general fund to fire tax budget was unanticipated when the fire tax rates were previously set. The current fire tax rates were designed to fund capital and personnel expenses through FY 2012, when the fire tax rates would be revisited. During FY 2009 and FY 2010, the shift of some $4.2 million dollars in unanticipated expenditures to the fire tax budget have had a negative impact on the fire tax fund balance that would have otherwise been available to help offset the projected deficit. This action alone has had the most negative impact on the current status of fire tax funding. We believe that when the BOCC decided that operating expenses should be funded by the fire tax districts, there should have been a formal evaluation completed as to what level of tax rate adjustment would have been necessary to fund these additional expenses.
2. The current arrangement of fire-rescue stations, tactical units, and staffing deployment meets the current response goals identified in the majority of incidents. The redundancy that currently exists within the system can be corrected over time, and tools such as the recommended “Approved Tactical Unit Deployment Plan” will aid this effort and help reduce costs.
3. The current 24-hour and 12-hour shift schedules for career personnel are the most cost-effective schedules available for the career staffing scheme as currently employed. However, DFRS should formally evaluate the reclassification of 40-hour paramedics to 48-hour schedule employees.
4. The position classification of Fire-Medic should be established as soon as possible. Current firefighters who are also advanced life support medical providers should be reclassified into this cross-trained, dual-role position. Currently, firefighters that Frederick County has trained are not required to retain the advanced life support (ALS) certification because it is not a requirement of their job description. The Fire-Medic position would require

the ALS certification to be maintained and would protect the investment in this certification that Frederick County has made. This will also position DFRS to hire fully integrated firefighter/paramedics in the future and establish a hiring preference for these highly valuable service providers. The Fire-Medic position would also allow DFRS to phase out the paramedic only position through attrition.

5. Re-Deployment Options:

   A reduction in career staffing support to our volunteer fire and rescue corporations will have a negative impact on service delivery in the following ways:

   a. Overall, the population of operational volunteers remains low and slow or failed response to incidents is likely to increase when career staff support is removed from stations that currently have career staff support.
   b. The availability of operational volunteers during the weekday, daytime hours is critically low and response failures during these periods are highly likely.
   c. An increase in slow or failed responses will decrease our ability to meet our response goals and will increase the frequency of supplemental dispatch of other companies, adding additional workload on neighboring stations.
   d. Currently, career personnel most often respond with the primary tactical unit and available volunteers respond with special service units, such as tankers, ladder trucks and rescue squads. With career staffing removed, available volunteers will respond with primary units and the special service units are likely to fail on a more regular basis.
   e. A reduction in the daily on-duty staffing strength will significantly reduce the size and effectiveness of the countywide firefighting force that is available when a significant incident occurs. On a per tactical unit basis, we routinely operate at a staffing level that is below the national standard for structural firefighting.
   f. Stations that lose career personnel will also lose the administrative staff support, vehicle and station maintenance support and training support often provided by career personnel.

g. The Alternative Service Delivery Task Force *DOES NOT* support the downsizing, de-staffing or redeployment of career personnel as a means of reducing the fire tax deficit *UNLESS* a volunteer corporation can demonstrate their ability to consistently meet their emergency response obligation with 100% volunteer staffing.

6. Capital Facilities and Equipment:
    a. Apparatus/equipment purchases should only be made using lease-purchase financing in order to preserve the fund balance.
    b. To the greatest extent possible, EMS funds must be used by volunteer corporations to purchase replacement ambulances. Flexibility must also be provided for volunteer corporations to use EMS funds to maintain their facilities.
    c. The BOCC should consider providing interest-free financing to volunteer corporations (up to a specified dollar amount) for facilities and apparatus, as an incentive for volunteer corporations to continue to purchase these capital assets.
    d. The BOCC should adopt a policy that Frederick County will no longer support separate facilities for fire and ambulance companies within the same community.
    e. The BOCC should reconsider their previous decision and direct staff to create a fire-rescue service impact fee to be applied to new development. Revenue collected from development impact fees should be dedicated for capital costs.
7. Operating Budget:
    a. DFRS must continue business practices that foster cost savings as a means of building additional fund balance throughout the fiscal year.
    b. The policy for the issuance of an individual set of personal protective clothing for new and less active volunteer personnel should be altered to conserve protective clothing inventory.
    c. The BOCC should adopt a policy that the county will only provide funding for operating costs for fleet vehicles that are identified in the "Approved Tactical Unit Deployment Plan".
    d. The BOCC should direct that a formal evaluation of county fleet service charge practices, as compared to private sector vehicle repair and maintenance charges should be made in order to determine if "in-

house" fleet service is the most cost-effective means of providing fire and rescue vehicle repair and maintenance.

e. The BOCC should direct an audit be completed of the current level of "indirect cost allocation" being assigned to fire and rescue services budget in order to determine if there are opportunities for savings.
f. DFRS should continue its current staffing and leave management practices as a means of controlling overtime expenditures. A cadre of qualified part-time fire and emergency medical providers should be expanded from its current levels to aid leave management so that leave opportunities can be expanded without the associated increase in overtime expenditures.
g. The uniformed firefighter hiring freeze that has been self-imposed by DFRS has proven to be an effective tool for cost savings in order to build fund balance. This effort should be continued for as long as economically practical.

8. Volunteer Participation:
    a. The reliability of operational participation by volunteers varies widely across the county. The vast majority of fire and ambulance stations that have been provided with career staff support previously had a response failure rate that exceeded an acceptable level of service. In some cases, volunteer corporations requested career staff support as a pre-emptive move to assure fail rates did not climb to an unacceptable level.

       A decision to return several of these stations to 100% volunteer staffed operations would be premature if there is an expectation that these volunteer stations will not be able to meet their primary response obligation.
    b. Frederick County lacks an ongoing countywide volunteer recruitment program. If we are to bolster and reinvigorate the ranks of our volunteer fire and rescue corporations, we must plan, develop and implement a comprehensive program to recruit additional volunteers into our fire and rescue system.
    c. In many volunteer corporations, volunteer membership levels are strong, but operational participation by these existing volunteer members has waned. Frederick County must look at other options to

provide additional incentives for increased operational participation by current volunteer members.

9. Funding Structure
    a. Tax equity will remain a philosophical debate that will exist regardless of the tax structure used to fund the provision of fire and emergency medical services. While this debate is not mutually exclusive to the fire tax, the debate is amplified because the funding source for the provision of fire and emergency medical services stands alone and is subject to individual scrutiny.
    b. There is no perfect tax structure for any government service. As long as there is diversity in geography, land use, development, assessed property values and service demand, there will always be a difference in the level of tax revenue a specific individual or community contributes toward the common good of both their community and the county as a whole.
    c. Tiered tax structures are more equitable when government resources related to service delivery are self-contained. However, fire and rescue service is based on a system design which overlays a response capability across the entire county. While the fire and rescue corporations are community based, there is no such thing as a self-contained community when it comes to fire and emergency medical services. Fire and rescue systems are interdependent because the service requirements within each community will regularly exceed that community's individual response capability.
    d. A single tax rate structure recognizes fire and emergency medical services as a countywide resource that operates for the common good of all citizens/businesses and asks each to pay a fair share to maintain and operate the service countywide. The single tax rate can be structured as a dedicated tax for fire and emergency medical services or included as part of the general property tax rate.
10. Other Revenue Sources
    a. DFRS should undertake an analysis of our current fees associated with ambulance transport billing to ensure that our current rates reflect actual costs to the greatest extent possible within the allowable Medicare / Medicaid guidelines.

b. The BOCC should direct staff to prepare a formal proposal for an insurance billing program for fire suppression, hazardous materials and technical rescue responses as a means of helping to offset the cost of these emergency services.
c. Community risk associated with the release of hazardous materials is typically related to the commercial manufacturing, storage, use and transportation of hazardous substances. It is reasonable to expect that with special risk comes a responsibility for a commercial enterprise to assist the community in its ability to prepare for and respond to this risk should there be an emergency. The hazardous use permit process and post incident cost recovery are a means to help the community offset the cost of the hazardous materials response capability it has developed. The BOCC should direct staff to move forward with the development of a hazardous use permit process and authorize a post-incident cost recovery policy to be implemented.
d. The BOCC should consider an adjustment in one or more of the taxes that target the transient population. The increased revenue could be dedicated to fire and rescue services as a means of offsetting a portion of the cost of servicing this population.

MOVING FORWARD

The task force would encourage the Board of County Commissioners to hold a series of work session discussions regarding this report to provide ample opportunity for the fire and rescue service stakeholders to express their views regarding the conclusions drawn from this evaluation of cost reduction options.

The task force recognizes the short time that remains in the term of the current Board of County Commissioners. While the current Board may be able to provide policy direction related to a number of the conclusions outlined in this report, a new Board of County Commissioners will need to continue this discussion into the coming year and beyond. If there is to be a change in the tax structure used to fund the county fire and rescue service, the opportunity will come during the term of the next Board. We must ensure that the new Board is thoroughly briefed on the many dynamics associated with the fire tax issue since they will have the responsibility to determine the future of the funding system for fire and rescue services.

There are difficult times ahead and it will require very difficult decisions to be made. The task force feels very strongly that closing the projected deficits cannot be done solely through expenditure reduction without significant harm to our current service delivery capability. While we agree that we must all continue to work to reduce expenditures, we must also be willing to look at changes in the revenue side of the equation as well.